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THE SPHERE, AUGUST 28, 1943
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THE SPHERE

Vol. CLXXIV No. 2275 WITH WHICH IS INCORPORATED THE GRAPHIC AUG. 28 1943

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Volume CLXXIV No. 2275 The SPHERE, London, August 28, 1943

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly

THE PRIME MINISTER IN CANADA: WITH HIS DAUGHTER AT THE NIAGARA FALLS, ON HIS WAY TO THE UNITED STATES TO VISIT THE PRESIDENT

On his way to the United States, Mr. Winston Churchill broke his journey for two hours of sight-seeing at the Niagara Falls, which he had not seen since the year 1900. He was accompanied by his daughter, Subaltern Mary Churchill, who is acting as his official aide-de-camp. Together they made a tour of local beauty spots. The Prime Minister was wearing a light grey suit, grey soft hat and the black shoes with zip fasteners which form part of his famous "siren suit" outfit. Mr. Churchill drove through the beautiful gardens which overlook the falls, and then motored downstream to the Queenstown Heights to look at the rapids. When this picture was taken, Miss Mary Churchill was still holding a bouquet of gladiolas with which she had been presented on her arrival. After the two-hour visit, the party crossed into the States by car and rejoined the special six-coach train, which then took them on to President Roosevelt's estate at Hyde Park, 80 miles north of New York

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A WAR NEWSLETTER —No. 208

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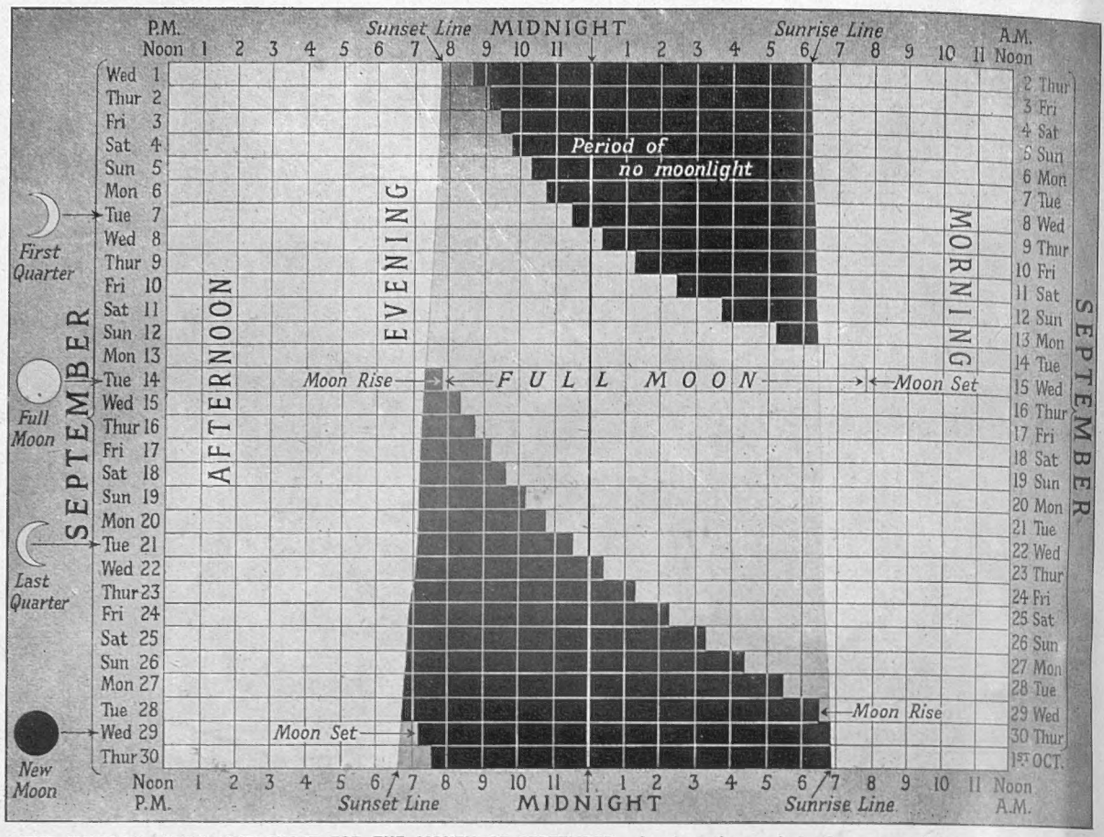
An End Achieved.—Here is a thought for comfort at a juncture in this long war when we await the climax and the fruits of Allied plannings and conferences from Casablanca to Quebec. As we wait on the issue, we assess (we are advised to assess) the trials and obstacles strewn ahead of us on the long, uphill road to victory and peace at last. High and rocky hills lie behind us; we have somehow surmounted them. High and rocky hills lie ahead still; we shall surely conquer them also. Meanwhile, the fifth war winter lies ahead and its hardships and its darkness need no imagining. Yet there is a thought for abundant comfort. It is this: In one vital sense the war is already won; the object which, above all, the free peoples took up arms tardily and reluctantly to achieve is totally won. That object was to prove to the last barbarians to remain among the peoples of the earth the eternal truth that "they who take the sword shall perish by the sword." So far as Europe is concerned, that truth is proven to the hilt. The evidence crowds in, uncontrovertible, inexorable as death. The mass of the peoples of Italy and Germany have had enough. They want nothing to-day so much as peace, an amnesty from bombs and blast and terror by day and night, from destruction and death, and from the slave labour and regimentation that death-dealing requires of them. They were "very satisfied with Nazism and Fascism," very appreciative of Führer and Duce, while victory smiled and their enemies were weak and easily punished. But when the sword turned against their own breasts; when they, in their turn, trembled at the siren's wail, heard the bombs hiss down, streamed out, homeless and hungry, into the fields, saw their fine cities laid waste and their sons and husbands and little children mown down by the reaper and avenger, the glory faded, their gods revealed feet of clay, and only the bare, primitive urge of humanity—to prolong its wretched life at all costs amid the dangers which beset it—remains a motive force in their unhappy existence. There are few to-day in Germany who have not learned the lesson, fewer still in Italy.

Russia, Germany and Ourselves.—Whenever I listen to or read the reports and comments of Alexander Werth, I feel that no observer puts better or more fairly the day-to-day point of view of the Russian Army and people, *vis-à-vis* the Allies. Indeed, he puts it so persuasively that he carries me with him, and for a minute or two I am unable to see any other point of view. And now once more he stresses the impatience of the Russian Army at the (to them) still inadequate share which the Western Democracies are shouldering in the defeat of Hitler's war machine. The war (they argue with restraint) could be finished this year if Britain and America would but throw all they have into the battle, take all risks (which Germany's present plight fully justifies), and open new fronts in two or three new sectors of the European wall at once. Tunisia and Sicily were useful little skirmishes, but (in German man-power) they represent no more than a brush for a village strong-point on the Orel Front. If the Western Allies would but *now* so venture as to draw off even forty of those divisions, the Russians would do the job and finish it this year. What do *we* know in England and America of the vital need for speed, we whose countries have never felt the poison and utter destruction of German occupation? When that point of view is put persuasively and with moderation, it is hard to see any other point of view. Why, instead of eternal talk and formula-making, why are we not cracking the Fortress wall at four new points—in Norway, France, Italy Greece or the Balkans? How much longer is Russia to carry the whole weight of war?



"THE SPHERE" MOONLIGHT CHART FOR THE MONTH OF SEPTEMBER, showing the period of no moonlight and the period when the moon will be at its full

A limited number of these charts will be supplied free of charge on application to the Publisher, "The Sphere," Commonwealth House, 1, New Oxford Street, W.C.1, but 2½d. in stamps must be enclosed with the application

Do We Deceive One Another?—Yes, that seems at first blush the inexorable logic that emerges from our present confident boasts that we have out-topped the Nazis in production, beaten them from the seas and the skies, and created scores of divisions of armoured forces, trained and equipped to the last button. Unanswerable indeed, until we tardily perceive another viewpoint emerging. The Japanese "little war" in which Russia is not concerned; the Battle of the Atlantic, not yet won, which cost some sweat and blood to scotch; the armada of ships required to win a precarious bridgehead on a small section of Sicily's coast line; the shrewd little pecks we have managed to make on Hamburg, the Ruhr, Milan, Turin, not without some expenditure of energy and initiative. Have we been so backward in help? Was the Tunisian, the Sicilian, adventure, after all, so trifling a brush, so leisurely accomplished? And if our confident boasts of overpowering output and mastery of air and sea, produce in Russia a reaction quite contrary to that which it produces upon the Axis, and merely underlines in Russian eyes our hesitancy to engage the enemy with our full power, may it not be that Russian propaganda produces the same confusion in our minds. The Russian casualty statistics have constantly puzzled us. There was a time (earlier this year) when Russian estimates (covering the war) of enemy losses in killed and wounded differed from the Nazi estimates by as much as 7,000,000! In the seven weeks from July 5, the Russian estimate of Nazis killed and wounded reaches 1,000,000; of planes destroyed 4,600; of tanks, 6,400. These fearful figures may react dangerously on the Allies of Russia, with their innumerable commitments in which Russia has no concern. They may well give us too glowing a confidence in Russia's ability to do the job in her own field. What conclusions emerge? More and more must be done at once to comprehend the other fellow's viewpoint, on the Allied side. A conference on immediate strategy between Churchill, Roosevelt *and* Stalin cries out for arrangement, and at once.

Vital Talks with Spain.—I don't know who first described the talk between Franco and Sir Samuel Hoare last week as "vital." If "vital" implies questions of life and death, no doubt such talks may have been unilaterally vital. For Britain and the Allies nothing vital can now hang on anything Franco may say or do, or leave unsaid or undone. Sir Samuel Hoare is no stranger to talks between Trimmers—one such indeed is graven on his heart and in the memory of most Englishmen. And it is doubtful if he could have got much of a kick out of the face-saving, coat-turning explanations and arguments of the Caudillo, who gave a new meaning to neutrality, and has in the past years coined new words of insult with which to brand Britain and all things British. As leader of a country still in a state of social and economic chaos, his fiercely pro-Hitler "neutrality" in our days of danger had reluctantly to stop short of open deeds and he was constrained to satisfy his Anglophobia only with choice insults. And now that he (in common with so many other statesmen in Europe—the Quislings, Lavals, Boris, Antonescus, and so on) have backed the wrong horse and are all agog to hedge, it will require a higher degree of political acumen than they have revealed hitherto, to justify themselves and their policies and utterances to their own peoples, and to an enlightened world. We shall (*this* time) not fail to remember who were our enemies and our friends; and there is little reason to justify differentiating Franco's neutrality from Quislingism or even Fascism. He looked down his nose at British follies and failings just too long.

Ordered South.—I confess that it was with more than usual reluctance that I turned my face South again for London and the Southern Counties. It was not only that it was the end of a holiday after three years without change. It was not the thought of taking up again the war-customary round of professional and local and domestic jobs—the Home Guard duties, the cinder-sifting, the Bench, the eternal struggle to keep the tiles on the house and the weeds from the cabbages, to extract eggs from starved hens and keep jays and rabbits and grey squirrels from the kitchen garden. It was rather the reflection that I was exchanging a better land for a worse. It is not a sudden discovery. Long ago I tumbled to it that in the Highlands of Scotland, away from towns, there is more wisdom and sanity and sense to the square mile than in Southern England. It is not that war seems more remote in these solitary places which never hear the noises of war except in practice for war. The same rules and austerity regulations apply, but somehow the Highlanders refuse to be fanatics, and refuse to be totally enslaved to them. In the South of England we lie down under the absurdities of much of our regimentation; in the Highlands they get over them somehow. The distances are greater, but they are made less crippling. In Southern England we grouse, but submit to needless discomfort. In the Highlands such handicaps are somehow smoothed out. For example: I need a new tyre. I shall have to travel 72 miles and fill in a score of forms before that tyre (around Christmas) is exchanged for the old one by my nearest authorised tyre-agent. In the Highlands (somehow or other) it would be arranged that my petrol supply and my tyre agent would live in the town which I visited in the course of duty. And so with coupons and rationing and accommodation, transport and black-out, and all the other war restrictions and complications—the Highlanders manage these things better and refuse to be enslaved to rules which have run riot to absurdity, and are simply regulations for the love of regulating, and rules for the sheer pleasure of drafting them. Perhaps also the Scots have greater confidence in the honesty of the average Scot, and save time and money and stress by banking on average decency. It pays to do so. But in the South of England we are treated as suspect and nasty children at an "approved school." We deserve it, I suppose.

THE OLD STAGER

The ROOSEVELT—CHURCHILL MEETING at QUEBEC

THE PRESIDENT AND THE PRIME MINISTER, AND MEMBERS OF THEIR PARTIES, on the terrace of the Citadel overlooking Quebec. In the background can be seen the towers of the Chateau Frontenac. In the front row are Mr. Mackenzie King, Canadian Prime Minister; President Roosevelt; and Mr. Winston Churchill. Behind them, from left to right, are—General Arnold, Commanding General of the U.S. Air Corps; Air Chief-Marshal Sir Charles Portal, Chief of Air Staff; General Sir Alan Brooke, C.I.G.S.; Admiral Ernest J. King, C.-in-C. U.S. Navy; Field Marshal Sir John Dill, British Representative in Washington; General Marshall, U.S. Chief of Staff; Admiral Sir Dudley Pound, First Sea Lord; and Admiral Leahy, Liaison Officer between the U.S. President and the U.S. Army and Navy

AFTER MR. EDEN AND MR. BRACKEN HAD ARRIVED BY CLIPPER. From left to right in front are—Mr. Anthony Eden, Foreign Secretary; President Roosevelt; the Countess of Athlone; and Mr. Churchill. Behind are—The Earl of Athlone, Governor-General of Canada; Mr. Mackenzie King; Sir Alexander Cadogan, Permanent Under-Secretary for Foreign Affairs; and Mr. Brendan Bracken, Minister of Information

THE BRITISH AND CANADIAN CHIEFS OF STAFF IN CONFERENCE. A picture taken at the Chateau Frontenac: seated round the table from left to right are—Lord Louis Mountbatten, Chief of Combined Operations; Admiral of the Fleet Sir Dudley Pound, First Sea Lord and Chief of Naval Staff; General Sir Alan Brooke, Chief of the Imperial General Staff; Air Chief-Marshal Sir Charles Portal, Chief of Air Staff; Lieut.-General Sir Hastings Ismay, Chief of Staff to the Minister of Defence; Air Marshal L. S. Breadner, Canadian Chief of Air Staff; and Lieut.-General R. Stuart, Canadian Army Chief of Staff

BEFORE THE FIGHTING CEASED IN SICILY

Scenes with the British Army during the Advance Towards the City of Messina

THE EIGHTH ARMY ENTERS CATANIA. The Sicilian port, focus of fierce fighting and the chief German defence position on the island, fell on August 5, just four days after the opening of the Allied offensive on this front. This picture was taken in the Via Garibaldi in the town, as the first Sherman tanks pushed through past the stationary Sicilian tramcars

THE CANADIAN GENERAL THANKS THE BRITISH TROOPS. Major-General Granville Simonds, commanding the First Canadian Division (in beret), paid a visit to the Hampshires to thank them personally for the part they played in the capture of Agira and Regalbuto. It was during this period that the British battalion came under his command

CANADIAN MINERS PLAYED A BIG PART IN THE VICTORY. With the First Canadian Division is a small unit composed entirely of former gold-miners from Alaska. Working on the treacherous mountain tracks, often under enemy fire, these men cleared the way ahead of the Eighth Army. Here they are preparing drills before dynamiting a mountain pass. A bull-dozer which fills in some of the craters is seen in the background

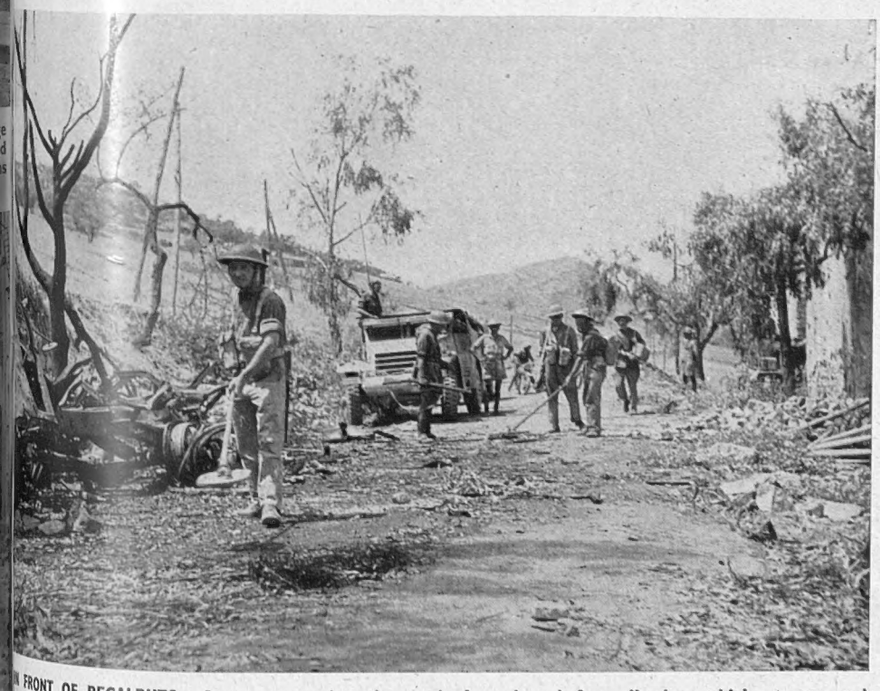
IN THE STREETS AFTER THE ALLIED OCCUPATION. An infantry patrol finds it hard to get through the crowded streets of Catania. Many of the people in the crowd were carrying their personal belongings, made up into bundles, as they returned to the bombed and battered port

THE WORK OF THE RETREATING GERMANS: A bridge over the dry bed of the River Diettano, damaged by a demolition unit during the retreat from positions at the foot of Mount Etna

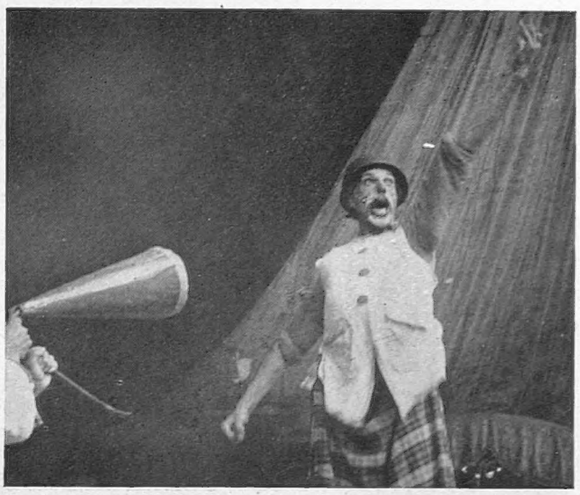
BRITISH GUNNERS IN ACTION NEAR MOUNT ETNA: Their gun has been placed in position among the lava rocks on the foothills of the volcano

THE ENTRY INTO THE TOWN OF ADRANO, SOUTH OF MOUNT ETNA. A key town which was very severely damaged by Allied shelling and bombing attacks

OW INFANTRY AND TANKS, WORKING TOGETHER, MOPPED UP IN THE CATANIA SECTOR : The wooded and cultivated areas in Sicily offered excellent cover for the enemy's anti-tank guns and machine-gun nests. The Germans made full use of this, especially during the rearguard actions after the fall of the town of Catania. When the tanks carry out "mopping-up" operations, a platoon of infantry accompanies each tank : the Platoon Commander, Company Commander and Tank Commander are in communication with each other by wireless. As soon as an enemy post is located, the infantry "mop up" the anti-tank guns, whilst the tank brings its fire on to the machine-gun nests. This shot from a Sherman tank in a Sicilian orchard shows such an operation in actual progress



N FRONT OF REGALBUTO : Sappers sweeping the roads for mines before allowing vehicles to proceed into the town. British infantry made a series of night assaults against the town of Regalbuto (west of Catania), with heavy air bombardments—mostly American—and artillery barrages to support them. In the morning it was found that this had driven the German troops out of the town, except for a few snipers. But before the infantry and vehicle columns were allowed to go forward, Royal Engineers had to search for mines and booby-traps : following their usual custom, the enemy had sown great numbers of these. (A full description of the land-mine is given in a series of drawings on pp. 272-3 of this issue)



A SICILIAN CIRCUS CLOWN giving a "Duce" performance for the Allied troops. The circus forms part of the national life of every Italian city and village. Usually, as in this case, one family comprises the complete circus. When the Carenza family of Militello gave a show to an audience of Sicilians and soldiers, the downfall of Mussolini provided some amusing material. Here Giuseppe Carenza is depicting the Duce as the "International Clown"

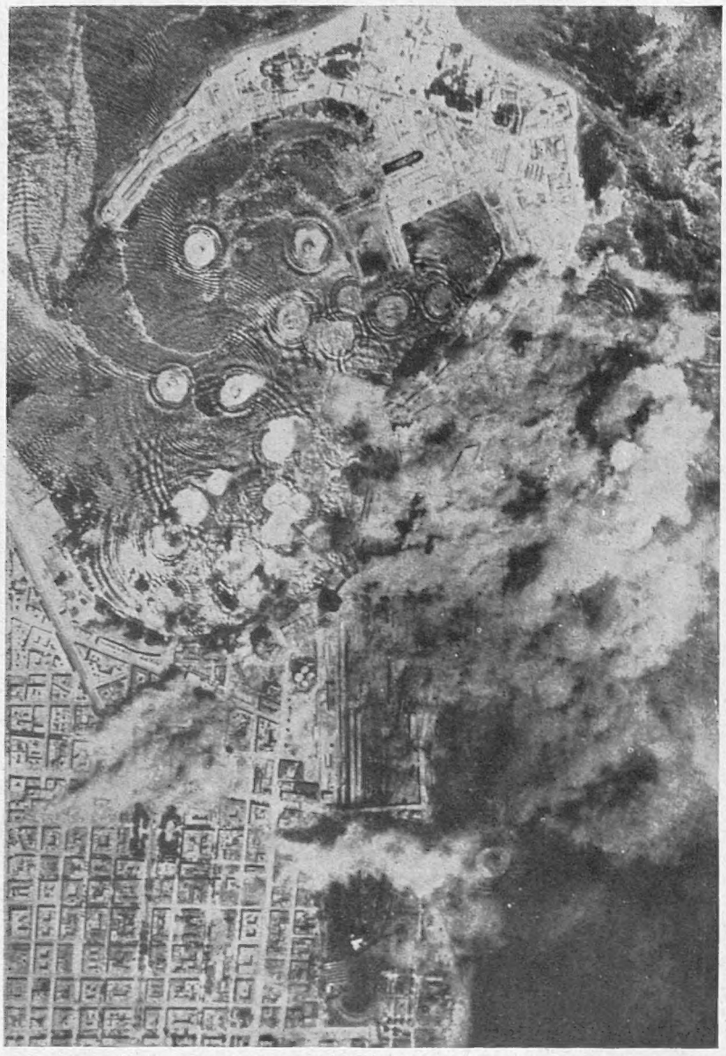
TOMMY HELPS TO RING THE CURFEW : In all Sicilian towns taken over by the Allies, a curfew is rung at sunset. This picture, of parish priest and soldier collaborating to toll the bell, was taken in the church at Scordia

THE SENTIMENTS OF THE PEOPLE OF MISTERBIANCO. Led by an ardent United Nations enthusiast, the civilians cheer the new Sicilian sentiments—"Viva England!" "Viva U.S.A.!" "Viva U.S.S.R.!"—painted on a wall

SICILIANS NOW WEAR ALLIED PAMPHLETS IN THEIR HATS. This one was dropped before the Allied invasion of the island : the heading reads—"Why die for Hitler?"

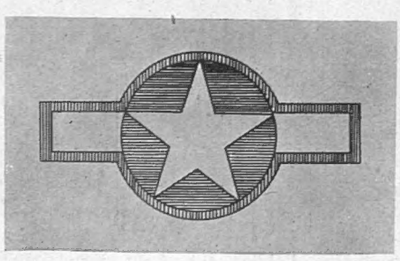
THE FLYING FORTRESSES IN ACTION

The Latest Pictures Showing the Work of the Big American Bombers in Their Raids Over Occupied Europe by Day



HOW THE ENEMY WAS BLASTED FROM THE LAST PORT IN SICILY: The Railway Ferry Terminus at Messina, smothered under an avalanche of bombs whilst the Germans were evacuating the town for the Italian mainland

The desolation in Messina when our troops entered the city was extraordinary. The city is, in fact, completely destroyed, and buildings in the town area are practically down to the ground level. The earthquake of 1908 hardly caused more havoc! During the last days of the Sicily campaign, when the Germans had only the use of the one port, Allied bombers were over Messina in an unbroken succession. In this picture, it would appear as if hardly a foot in the Ferry Port could escape its load of heavy bombs!



THE NEW MARKINGS ON AMERICAN AIRCRAFT—the five-pointed star is now placed on a blue disc superimposed centrally on a white bar. The insignia is outlined with a red border

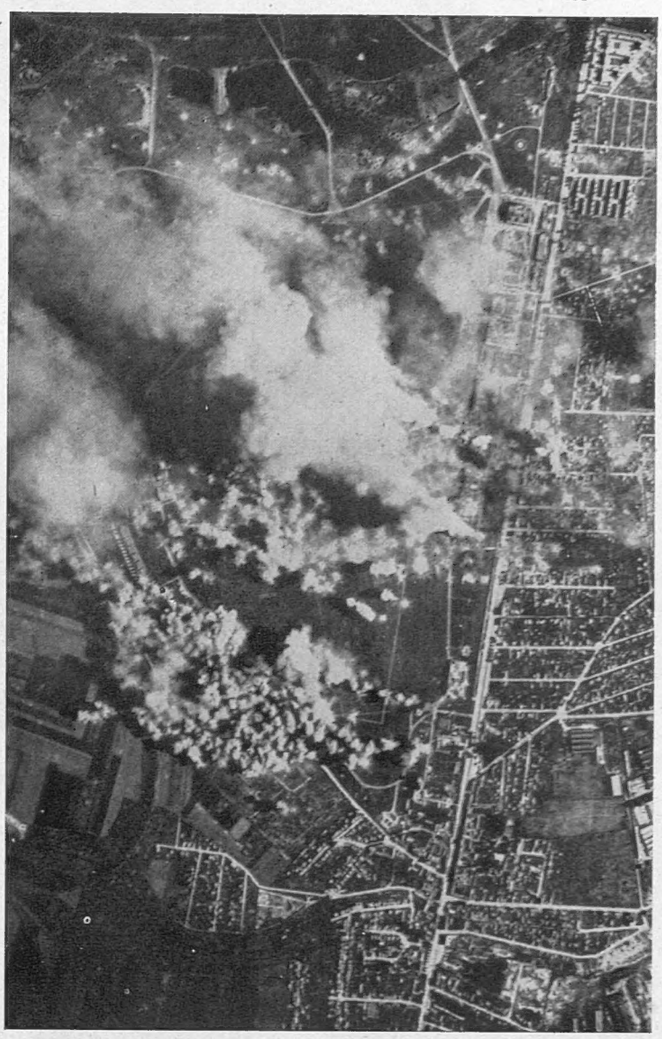
LIKE FALLING MATCHSTICKS, INCENDIARY BOMBS FALL IN A SHOWER from Flying Fortresses over the Harbour and military installations at Naples during a recent raid: The latest attacks on the great naval base of Italy have led some correspondents to believe that Naples may eventually share the fate of Hamburg. Flying Fortresses have been battering at this important target for many weeks now, and it is known that the devastation is on a great scale. Naples is vulnerable to attack from bombers flying from bases in North Africa, and the attacks have been greatly accelerated during recent days. Many important targets have already been virtually demolished

AMERICAN FLYING FORTRESSES STRIKE AT THE FRENCH HOME OF NAZI FIGHTERS. The important base used by the Luftwaffe at Glisy, near Amiens, in Occupied France, being bombed by daylight—one of a series of attacks carried out on August 15. Later, this same aerodrome was again very heavily attacked

***On right*—**What at first glance might appear to be several avenues of trees extending across the width of this photograph from left to right are, in reality, puffs of smoke from bombs which have just ploughed furrows right across the landing area of the important Nazi fighter base at Glisy, near Amiens, in Occupied France. The picture was taken from one of the Fortresses which hit this target on August 15, while other formations were attacking enemy fighter aerodromes at Merville, Poix, Vitry-en-Artois and Vendeville. The bomb hits begin in the dispersal area and continue in almost unbroken lines through the landing area. The heavy concentration of bursts seen at the left centre are in the hangar and workshop area. One large hangar received five direct hits. Similar hits were also scored on four out of five workshops near by. Towards the right is another concentration of bursts on the east-west runway. Administrative buildings, barracks and dispersal sheds are also covered by clouds of bomb-bursts

WHEN FORTS MADE THEIR DEEPEST PENETRATION INTO GERMANY: The attack on Schweinfurt, the ball-bearing centre between Cologne and Munich

Every war implement that requires moving component parts must have ball, roller or taper bearings. The German production of these is centred in the one-industry city of Schweinfurt, which lies about 60 miles to the east of Frankfurt and between Cologne and Munich. Here are produced the majority of Germany's bearings. American Flying Fortresses, operated by the U.S. Eighth Air Force, comprising two "Air Task Forces," hit the huge plant on August 17, the anniversary of the first heavy American bomber raid on Hitler-Occupied France. This picture was made from one of the aircraft during the attack: it shows the first bombs exploding on one of the big plants. Hits were scored on all three of the ball-bearing plants. Schweinfurt had not previously figured as a target in any air communiqué



LE BOURGET BOMBED BY FLYING FORTRESSES ON AUGUST 16: This important peacetime aerodrome near Paris, now completely taken over by the Germans, is one of the two principal bases for the supply of new aircraft, and for the maintenance for all German fighter units, on the Western Front. It was struck heavily by Eighth Air Force Flying Fortresses on August 16. The tight clusters of bomb-bursts along the edge of the field (at bottom)—an excellent demonstration of precision bombing—are in an area of large hangars, an ammunition dump, dispersal sheds and barracks. To the right of the picture, airport administrative buildings were set afire, and a column of white smoke towers above a burning hangar. In other parts of the aerodrome at least seven workshops were severely damaged or partially destroyed, more hangars and barracks were badly damaged, and more than 250 bomb craters were left in the main landing field. One bomb narrowly missed, but damaged, a large parked aircraft

On right—

On August 17 the Americans carried out a deep penetration into Germany. Exactly a year after their first raid on Rouen with twelve aircraft, British-based bombers made the long flight to Regensburg in Bavaria. Here, on the Danube River near the Austrian border, is a huge factory where Messerschmitt fighters are made. After the attack the bombers continued southwards and landed at bases in North Africa. Colonel Curtis E. le May, who was in command of this Task Force, reported by cable from there that his formation was under constant attack by enemy fighters all the way from Antwerp down to the Alps! The picture on right was taken after the raid, shows the ruins of the Regensburg factory—one of the principal producers of fighter planes for the *Luftwaffe*. The buildings in the egg-shaped plot at the left of the picture are those of a hospital. Its buildings were untouched by the bombs

THE ATTACK ON REGENSBURG ON THE DANUBE RIVER, where a huge Messerschmitt factory is located close to the Austrian border. This picture was taken by a reconnaissance plane on August 17, a few hours after the Fortresses had carried out their highly successful bombing attack and then flown on to North Africa

The KIND of FRENCH WE'LL FIND TOMORROW

And the New Regime in that Unhappy Country When Her People are Free Once Again

By FERDINAND TUOHY

FOR reasons of strategy more than of politics France is much in our minds these days. If Allied landings have been canvassed on and off since the spring of 1942, the prospect is now felt to be really likely.

Of course, there need not be a scrap of doubt as to how the Allied troops would be received. With heartfelt thankfulness and tears of joy. It would be one succession of "Palermos"—only with the throbbing emotion coming from people who had felt themselves of and with us all through, in spite of every deceit and temptation practised upon them, despite every grief, hardship and suffering which others hoped would turn the French from "the Anglo-Saxons," meaning the Americans and ourselves.

While the delirium of deliverance lasted, the French would have thought for but one other company besides the Allies—for their prisoners of war. The great majority still under forty, and therefore capable of recovering their virility, these men will throng back by every means and in almost the same proportion as perished in the last war—1,300,000. Nor will the prisoners return humiliated or broken in spirit, judging by the following, which was recently smuggled from one of their camps in Germany, purporting to speak for "the immense majority":

"We know that we and our families' distress are being used to spread lies about our true feelings. We therefore wish to make these points clear. (1) We deny the use of our names to the policy of 'Collaboration.' (2) We dissociate ourselves from the attacks levelled against those (Frenchmen) fighting beside our Allies and making their sacrifice for the common victory. (3) We are totally against the shameful practice of sending French workers to Germany in return for some of us going back to France. (4) We reject any new pressure on our people on the pretext of helping us. In misfortune we are still soldiers and intend to uphold our honour and dignity."

These sentiments gained in significance as I recalled some observations made this summer by Réné Massigli, now in charge of foreign affairs on behalf of the Algiers Committee of National Liberation. M. Massigli was really thinking aloud on the kind of French we should meet when we returned to France, and it was something of an eye-opener for any present who imagined that the general attitude would be one of *mea culpa*, of confession of having let others down and asking to be re-admitted to friendship.

After the first clasping fever has subsided, the French will look around and behold their nation in ruin. Only bricks and the spirit of France will remain, and, maybe, many fewer bricks by the time it 's over. Materially, the country will be ruined. What the Germans haven't taken, they will destroy, including the vast new industrial life built up between 1920 and 1939. Even the national stand-by—agriculture—will be in sore case due to the extravagances practised upon it, not least the protracted use of the vineyards to yield any kind of stuff so long as it made fuel alcohol.

Looted of most things movable that were of value, France will also have to face up to an extreme currency problem, since nowhere have the Germans borne down more destructively than on the franc. In fact, the whole national economy will be in pieces. And along with that, the administration of the country will be so disorganised as to require entire rebuilding. And the same must go for the national physique, grievously undermined by Hitler's policy of granting millions just sufficient nourishment to exist and work for him. There will be all manner of private trials and difficulties, too, consequent upon long separation, and frailties and divergences of attitude under the occupation.

So we were warned at that reunion to expect the French to be more hard then formerly, a people animated by sterner notions than the world has come to associate with them. Cruel adversity will have caused them to be more drawn in upon themselves. Long and terrible mental suffering and physical hardship will be found to have made inroads on their easy-going characteristics. Something horrible happened to them, and they will be engaged in searching for the whys and wherefores in passionate quest of a more durable independence.

By some, a violent reaction against foreigners is feared, product of a natural recoil from the *étranger*. Others expect the French to be less disposed to xenophobia, consequent on their experiences, pointing to the indivisibility of modern existence behind national boundaries. They will almost certainly incline to greater introspection, and this may suggest an ingrowing complex. Yet in reality such bearing will be in keeping with the firm conviction held by nearly all, that France can only be restored by the efforts of the French people themselves. Any other form of rehabilitation will be succeeded by further tragic failure. The underground paper *Résistance* sums up this aspect:

"This freedom, to which we must sacrifice everything, would have no spiritual worth if it were not our own achievement. France is guided by her conscience, and her liberation will be an act of the national will, or else it will be merely a change of master."

But none of this self-centredness will interfere with France's wish to collaborate with others. The French will be truly keen to collaborate towards a more sensible and fruitful international order, though with the proviso that they shall in no sense be treated as inferiors because of the collapse of 1940. They have their own opinions about the geographical luck of others in escaping a like "collapse," others who were even less prepared than themselves. But they do not wish to stir dead leaves. They are going to judge their own men who let them down, but they wish to avoid passing judgment on Allies of 1939. They feel that everything in that line is best forgotten, and can be forgotten, even "Oran," which will linger longest.

The French feel vehemently that the sufferings they have endured through refusing to bow to the New Order are to be weighed against the heavier casualties sustained in battle by uninvaded countries whose forces were enabled by an accident of geography to continue the fight. This is a cardinal belief which we may expect to hear decisively put in the event of infractions of modesty by others.

The kind of regime the French will forge while painfully putting their house in order will be a Republic—the Fourth—at once invested with greater authority and more liberal elasticity than its predecessor. Various reforms will be introduced into the workings of the Presidency, the Senate and Chamber, and at least one big change may be borrowed from us—with regard to the dissolution of parliament. This will enable the country's will to be heard when in the past it was not, sometimes with unhappy consequences. There may also be modifications in the Code Napoleon, especially touching the law of libel, but reaching out to criminal law generally.

This whole process of *Renovation*—the word of the day—is at present being hammered out, though I hesitate to say where beyond that one of its leading architects is the accepted political successor of that fine Frenchman, Edouard Herriot. *Renovation!* And it doesn't signify stark revolution, but the retention of what was good, and the welding of it to new forms and aims. Some of the national renewal will undoubtedly take after Soviet Russia, and here a singular circumstance should not be lost to view.

The Catholic Faith in France has lost nothing through the war; on the contrary, it has gained. But Communism has gained, too. So much so, that Catholicism and Communism look like being the strongest forces in to-morrow's France. Two opposites. A bad augury for the new regime. At first sight, yes. But look closer, and you will discern a condition peculiar to France. It is this. The French Catholic intellectual enjoys the respect of, and has a common language with, the intellectual unbeliever. In France there is common ground of discussion bridging the gulf between theologian and communist-militant.

It would be hasty, therefore, to rule out the possibility of an accommodation between the Cross of Lorraine and the Hammer and Sickle, to scout the likelihood of a union between Jeanne d'Arc and Danton. At least, we on this side of the Channel should be thoroughly prepared for a hand-grasp across Europe between Paris and Moscow. Indeed, the degree of fervour put into that clasp depends in no small degree on our attitude to the coming France, now no less than presently. Should the French feel any sensation of their being placed in tutelage, of their being considered as only a second-class Power, their impulse to make Russia their Friend No. 1 will be reinforced.

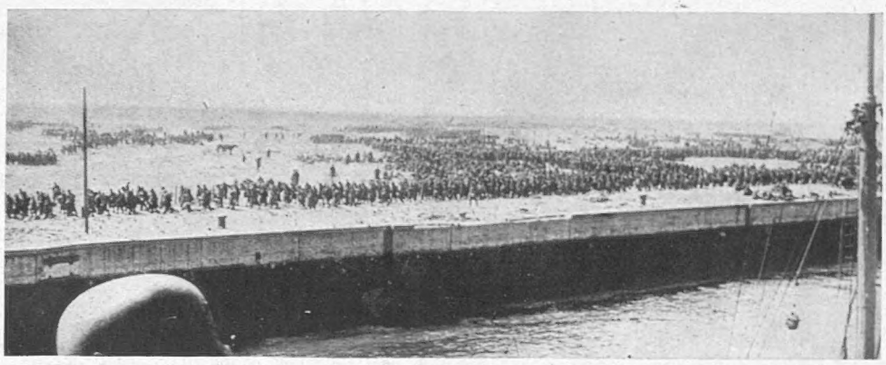
But whatever we do, the French have already made up their minds to be on sound terms with the U.S.S.R. They point out that each time they have omitted to keep a friend on the other side of Germany—in 1815, 1870 and 1940—disaster has ensued for them. Though the French intention to back the Soviet will not derive purely from the fact that Russia will be the strongest land power in Europe for a long, long time. It is keenly felt, in addition, that there exist strong revolutionary links between the two peoples. When General de Gaulle made his recent rapprochement-with-Russia speech at Rabat, he was reciprocating sentiments expressed by Stalin a few weeks earlier.

"The Soviet people," said Stalin on that occasion, "deeply sympathise with the courageous fight undertaken by the French people against the Hitlerite yoke and with the efforts made by the best men of the land of France and by her reborn forces under the emblem of liberty and the rebirth of France."

In view of other circumstances, it is not surprising that a small, reflective world here is beginning to show uneasiness with repect to the future of Anglo-French relations. In these quarters the chances are being examined of a reborn *Entente* founded upon common interests and security, and on mutual respect. Clear it is that a moment of history approaches when the affairs of England and France are going to be decided for many decades. A moment having great chances. For the French realise that the Battle of Britain was for them, as for us, the decisive influence. Retaining their pride, they are ready to admire. But we cannot afford to be suspect of putting any hindrance in the way of France entirely establishing her own regime.

Many here think the French are played-out. But others who know how quickly the French can recover, are anxious lest we be left holding the baby. The Americans can afford, from afar, caprices towards the French. But we don't want 400 miles of unfriendly France as a legacy, right opposite us.

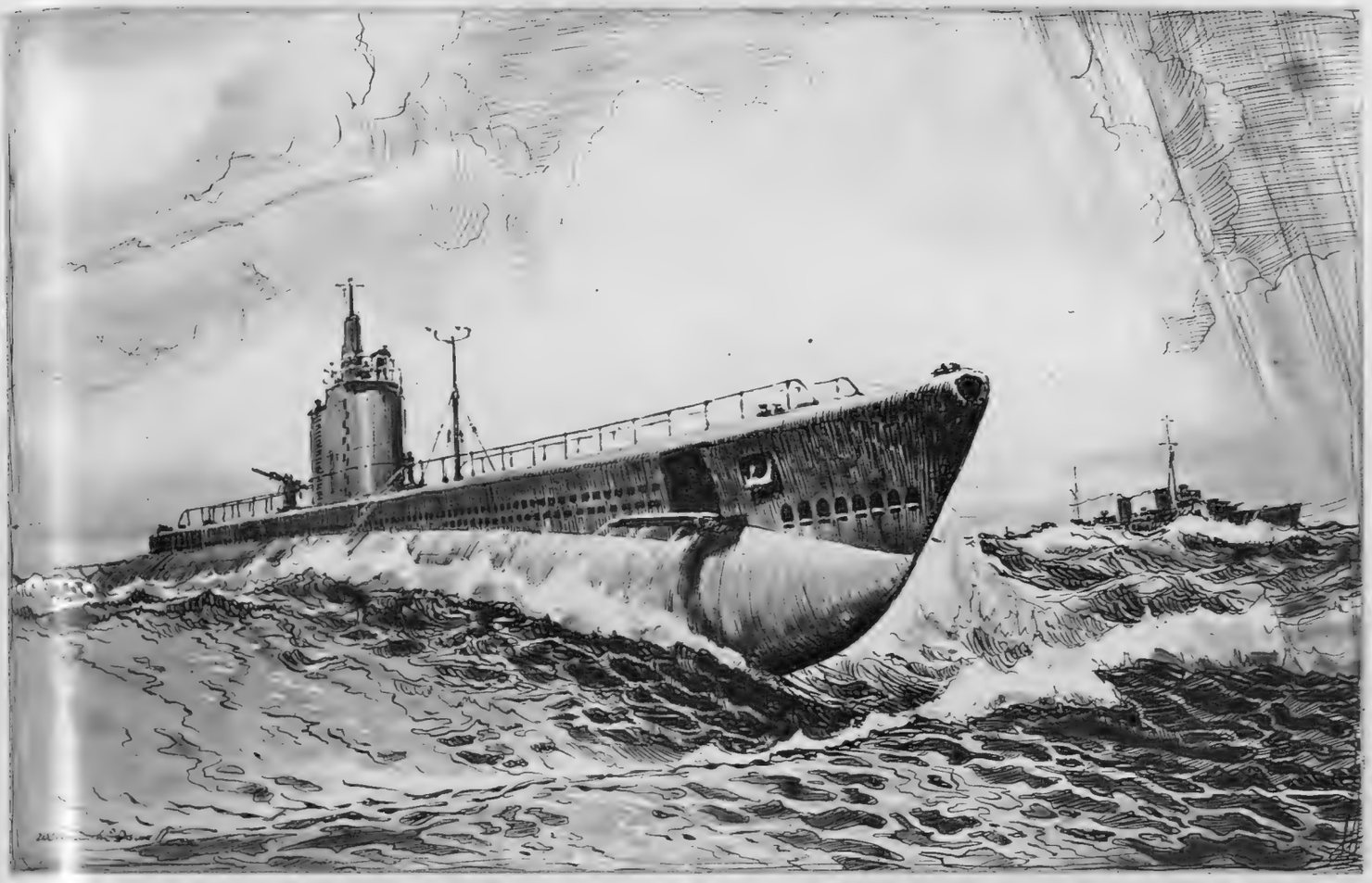
TWO CONTRASTING PICTURES from FRANCE during the WAR



THE MEN WHO WERE LEFT BEHIND AT DUNKIRK. French prisoners of war being marched away from the beaches to a German internment camp. These men—nearly all of them French soldiers—made up the rearguard which covered the evacuation of the Allies. They were captured; and they have now been kept in German prison camps for over three years

FRENCH WORKERS SIGNING ON FOR LABOUR IN GERMANY, in response to the Vichy Government's pleas for "collaboration" with their former enemies. We may leave it to posterity to decide in how far these men and women have betrayed the soldiers who fought so desperately, but unavailingly, in their defence

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export



THE NEW-TYPE U.S. SUBMARINES

Showing their Graceful Lines, and the Underwater Body Constructed in One Long Sweep with No Outside Bulges

—Drawing by Wm. McDowell

American submarines differ greatly in their outlines from British vessels. The superstructure of the newest types is in one unbroken line; this, and the fact that their ballast tanks are within the pressure hull and not in external "bulges," gives them a particularly graceful and speedy appearance. The conning tower is a massive affair, and the periscope is protected by a heavy "housing." They are further distinguished by a heavy propeller guard round the stern. The underwater form of the hull of a submarine (or of any vessel, for that matter) is the most important factor of its design. A point of interest is that no U.S. submarine seems to carry the anti-net "jumping wires," such as British vessels carry. A submarine of the type illustrated here would have a displacement of around 1500 tons, and carry a complement of some sixty-five officers and men: it would measure over 300 ft. in length, and would have a surface speed of 21 knots. The armament—in addition to its ten 21-in. torpedo tubes—would include a 3-in. anti-aircraft gun and machine-guns. Of the latest submarine type in the U.S. Navy, seventy were laid down during 1940-1942, and one hundred and twenty more have since been ordered for construction in American shipyards

A NEW INDIAN NAVY VESSEL

The Sloop *Godaveri* which was Recently Commissioned with an All-Indian Crew

—Drawing by Wm. McDowell

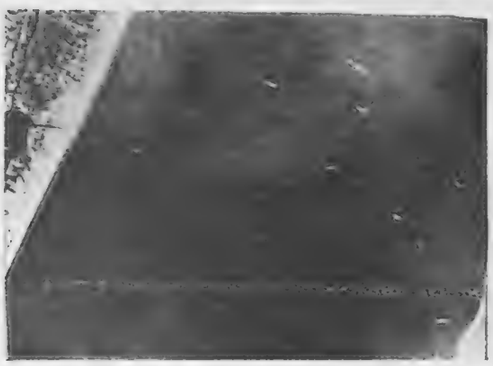
H.M.I.S. *Godaveri* is one of the latest-type sloops. She was recently commissioned at the South Coast shipyard, where she was built, with a ship's company of Indians, who have been training in this country for some months. It has officially been stated that a number of vessels for the Royal Indian Navy have been constructed in British and Australian yards since the war began, including sloops and corvettes and minesweepers: the personnel has been increased "more than tenfold" from 1939 to the end of 1942. The captain of the *Godaveri*, Commander J. W. Jefford, is English: the complement of India's "newest and best ship" contains a large proportion of Ratnagaris and Punjabis, India's chief seafaring races, although there are also seamen, stokers and communication ratings from almost every part of India. Before they entered the Navy they were told that all racial and caste differences must be forgotten at sea. There are many Indian officers in the Royal Indian Navy, but the *Godaveri* (having been commissioned in this country) has a high proportion of British officers. The navigator, however, and the ship's doctor are both Indians.

HOW the GERMANS STAGED their EVACUATION of SICILY

And the King on the Bridge of H.M.S. "Onslow" during his visit to the Home Fleet

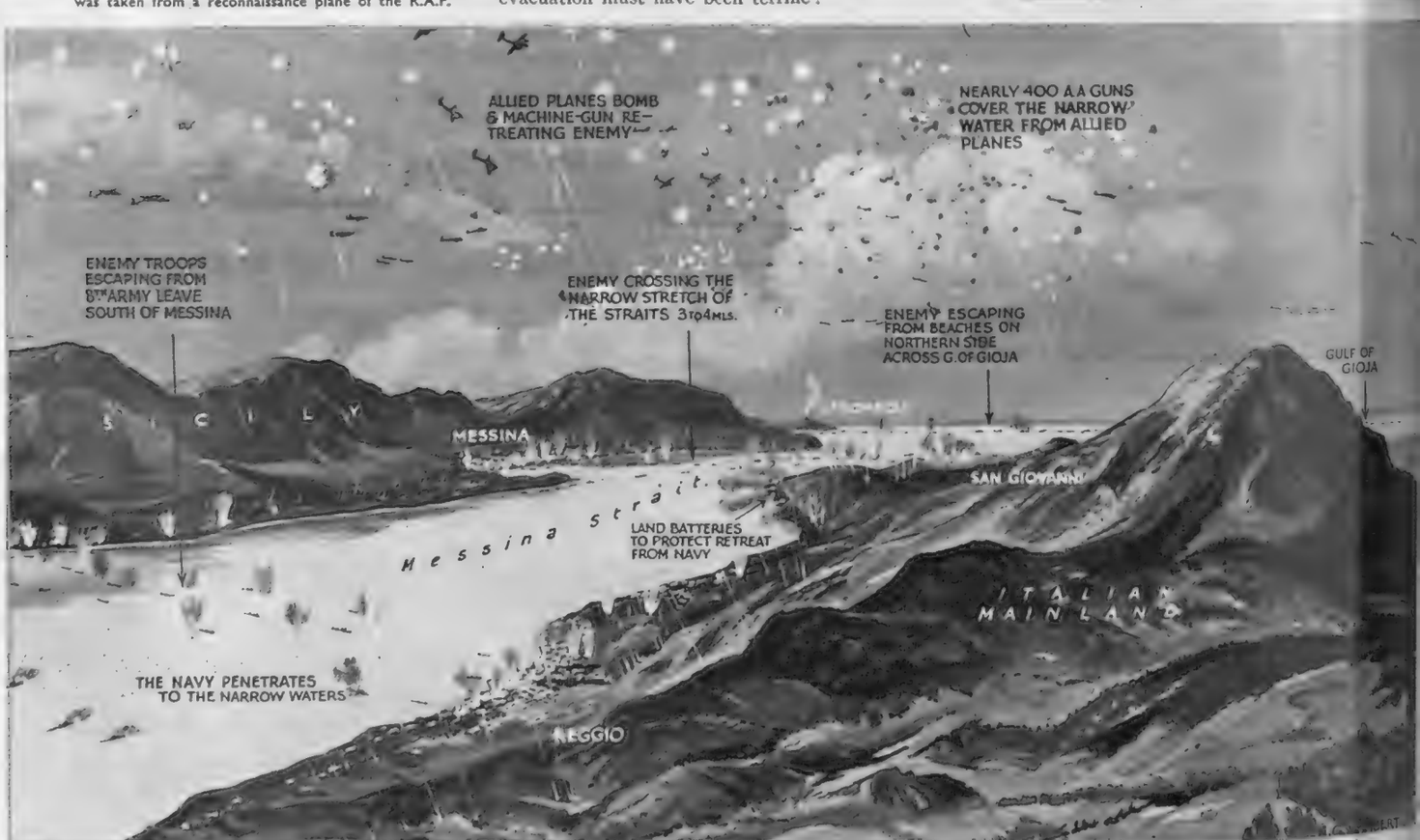
—Special Sphere Drawings

THE STRAFING OF THE AXIS BOATS IN THE STRAITS OF MESSINA: Every possible type of craft, down to rowing boats, was pressed into service to evacuate the German troops from Sicily and ferry them across the narrow Strait to the mainland. The drawing shows a large power barge crammed full of soldiers being capsized as the result of an attack by R.A.F. aircraft: in peacetime, this type of barge would be employed to carry wine, fruit and cattle—*Drawing by Wm. McDowell*



AXIS ESCAPE HATCH: The Sicilian beach at Messina (left) and the tip of the Italian mainland (right). The white streaks in the Strait are small boats loaded with escaping Axis troops as the evacuation from Sicily got into full swing. The picture was taken from a reconnaissance plane of the R.A.F.

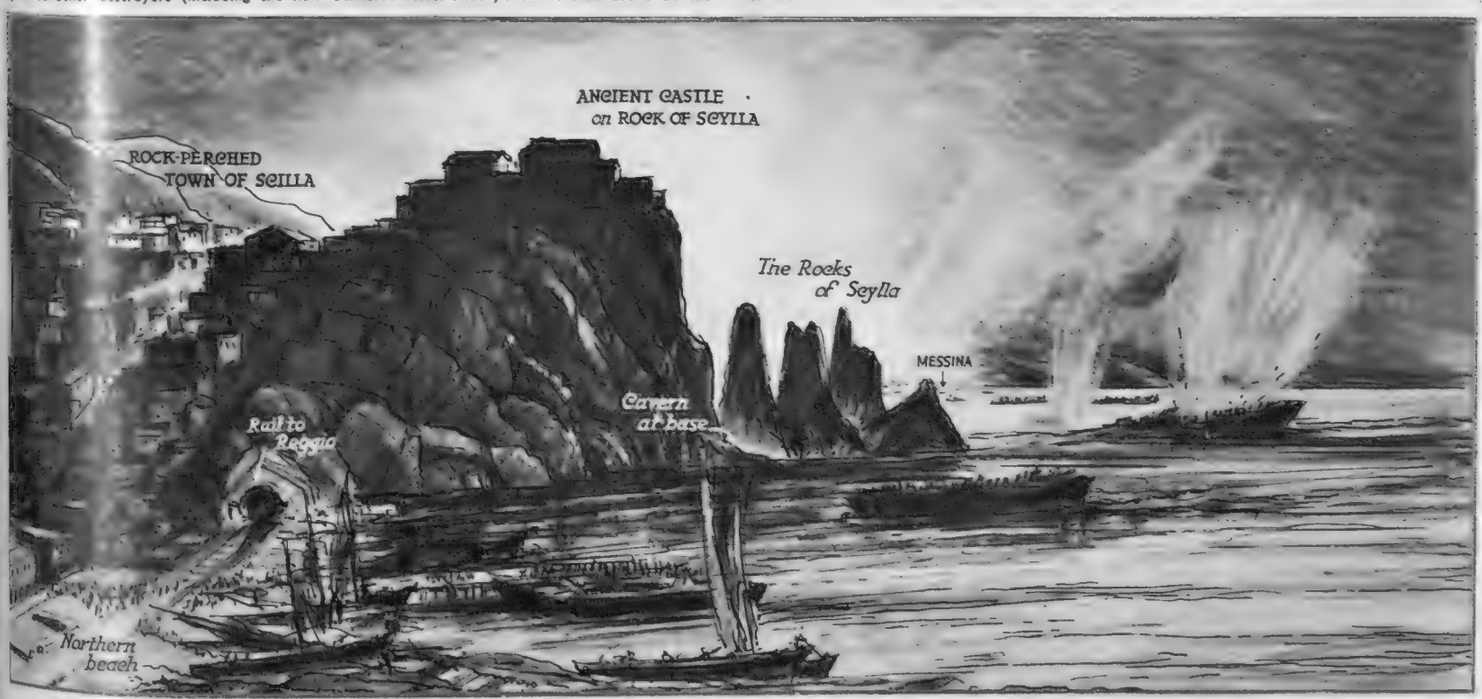
The end in Sicily came with suddenness. After the capture of Randazzo and other key points on the island, the retreat became a scramble—to leave the island and reach the comparative safety of the Italian mainland three or four miles away. From Messina, at the very tip of Sicily, and across the Gulf of Gioja to the north of the island, the small boats streamed across, suffering heavy casualties from the bombs and guns of the Allied aircraft which ceaselessly patrolled above the Strait. To cover the retreat, the Germans had brought down to the toe of Italy 400 anti-aircraft guns: with these they put up a heavier barrage than had ever before been experienced by our Mediterranean pilots. In addition, land batteries were established along the coast to keep the Royal Navy at bay and to lend additional support to the Axis small craft during their brief journey over. Despite this, units of the Navy *did* venture into the narrow waters. The execution wrought by them and by our aircraft during the evacuation must have been terrific!



HOW THE EVACUATION WAS CARRIED OUT BY THE GERMANS, under cover of an anti-aircraft barrage consisting of some four hundred guns massed on the Italian side of the Messina Strait. The sea crossing was three to four miles; despite the heaviness of the German flak, however, the R.A.F. carried out non-stop assaults on the small boats crossing to the mainland—*Drawing by E. G. Lambert*

THE KING GOES OUT BY DESTROYER TO VISIT THE SHIPS AND MEN OF THE HOME FLEET: His Majesty on the bridge of H.M.S. "Onslow," which took him to the flagship, the "Duke of York." With him is Captain J. A. McCoy, who is Captain "D" of one of the Destroyer Flotillas

Flying the Royal Standard in the flagship *Duke of York*, the King led the Home Fleet to sea for battle practice during a four-day visit to the Fleet which he has just completed. It was one of the biggest-scale Fleet exercises ever held in wartime, and the most thrilling the King has ever seen. His Majesty was taken out to the flagship in the destroyer *Onslow*, which was escorted by three other destroyers (including the new Canadian vessel *Huron*): he is seen above on the bridge, with Captain "D" and other officers, on his way to the flagship. When he reached the *Duke of York*, the Battle Fleet steamed at exercise for five hours, stretched over a wide area of the North Sea. It was "attacked" by aircraft, submarines and E-boats, and it engaged two "enemy" cruisers. This is the fifth visit the King has paid to the Home Fleet since the outbreak of war



THE SCENE IN THE STRAITS OF MESSINA DURING THE AXIS EVACUATION OF SICILY as seen from the famous Rocks of Scylla—*Drawing by Percy Home*

This is the picture which would have greeted the observer by night during the scramble by the Germans to leave the island of Sicily. In legendary lore, Scylla goes back to the days of Homer, who placed here a sea-monster who snatched at unfortunate seamen. Later, the region of danger was identified as the Rock itself, together with the whirlpool of Charybdis on the Sicilian coast. To-day, an ancient fortress crowns the bold headland and the sharply pointed rocks below thrust out into the Strait. The rock-perched town cascades down to a northern and southern beach, the castle headland lying between the two. The busy fishing beaches naturally provided landing-places for the enemy's escape barges. At certain times, knowledge of the local currents is necessary, as they can be very strong when the wind is blowing from a certain quarter. The coast railway from the north towards San Giovanni and Reggio is shown in the drawing. Air attacks on Messina, on the other side of the Strait, were continuous whilst the German evacuation was in progress

PHASES OF THE SICILIAN CAMPAIGN

Which Led Up to the Total Defeat of the Axis and the Withdrawal of the Germans

—Special Sphere Drawings

Below—It is now known that some of the towns and villages of Sicily were badly smashed up by bombing and shelling as the battle raged around the slopes of Mount Etna. Many of the civilians fled from their homes during this period up towards the summit of volcanic Etna, to escape the dangers of war: for this reason there was a most extraordinary ebb and flow of the population. Some of the villages were overcrowded with refugees, some of the towns were practically empty. As soon as the danger passed, townsfolk and villagers wanted to return to their homes immediately: one of the principal jobs of the Allied administrators, therefore, was to check and control the movements of the population and discourage unnecessary travel. Not only was there a difficulty in feeding a constantly moving population, but there was also the necessity of keeping civilian traffic to a minimum. Every additional cumbrous mule-cart meant the slowing down of every British convoy that met them on the road.

ONE OF THE SIGHTS OF THE SICILIAN CAMPAIGN: As the Allies advanced, all along the road streams of civilians were returning to their little towns ringing the west side of Mount Etna. They had been seeking refuge from bombs and shells in the higher slopes of the mountain, but returned as soon as the battle had passed on to the northward and the Germans had withdrawn—*Drawing by W. G. Whitaker*

THE "BULLDOZER" IN SICILY BECAME A MILITARY WEAPON, so essential was it for the successful accomplishment of many tasks in connection with the Allied advance in the difficult country of the island's interior—*Drawing by W. G. Whitaker*

How bad the country around Mount Etna was, may be judged from the fact that the "bulldozer" became a primary military weapon for a while: at one spot these machines were called upon to hack out a road through a roadless mountain area, so that our troops could swing round to threaten the German line and for which we should otherwise have had to fight a bitter battle

Both in Tunisia and in Sicily this powerful machine has helped (literally) to hew a path to victory. The drawing above shows how the attack on the German positions hinging on Adrano was made possible by the new road hacked out of the mountain by these machines of American origin, landed in Sicily soon after the initial invasion of the island

A GREAT FEAT BY THE AMERICANS ON THE NORTH COAST OF SICILY: The landing from the sea by units of the Seventh Army in the enemy's rear—an operation which took the Germans by surprise near Santa Agata—*Drawing by E. G. Lambert*

The dramatic landing from the sea by American Seventh Army units in the enemy's rear along the northern coast of the island was one of the outstanding features of the final stages of the Sicilian campaign. The landing party, which met no opposition, surprised German reinforcements moving westward in lorries along the road. The Germans tried to turn their lorries, but the Americans surrounded 300 of the enemy and took them prisoner. The landing was well covered from the sea by cruisers and destroyers, which plastered the beach. This surprise move, which was made at dawn, was initiated as a result of recent successful landings along the coast from boats of guns, vehicles and equipment. The mountains overhang the sea so precipitously in places near Santa Agata that the coast road is hewn from the cliff face. The Germans, instead of blasting the rock sides above the road and causing landslides which would have blocked the road only for a limited time, blew the road away completely by putting their demolition charges below it. The advancing troops found themselves faced with yawning chasms impossible to circumvent without prior major engineering feats. The expedient, therefore, was adopted of keeping up the chase by sending men and material around the demolitions by sea. The equipment was lowered on ropes down the faces of the cliffs into the boats, moved around to the next spot with a practicable road, and hauled up the cliffs again to resume the onward trek

"HITLER'S SECRET FLOP," OR THE GERMAN "SOBBING SISTER"—the multiple-barrel mortar which the enemy used during the fighting in Sicily and which did not live up to the propaganda claims made for it—*Drawing by E. G. Lambert*

During the advance on Tunis British troops found a number of abandoned "Nebelwerfers"—the new German multiple-mortar (which was illustrated in detail in last week's issue of *The Sphere*). With tubes arranged revolver fashion, the mortar is fired electrically and has a range of several hundred yards. The Eighth Army in Sicily found a new name for this weapon—"Hitler's secret flop." Enemy propaganda had claimed that they fired large-calibre compressed air shells which would "blast the lungs out of anybody" at 1,000 yards range: but they failed lamentably to do this! When a shell from one dropped 17 yards from one of our soldiers he afterwards sat up and proved his lungs were all right by asking for a cigarette! The shells make a peculiar noise when in flight overhead. In the words of one officer, they sound "like a gaggle of geese in flight." Another man has named the Nebelwerfers "Sobbing Sisters"

SOME OF THE PRINCIPAL TYPES OF AIRCRAFT EMPLOYED IN THE FINAL BOMBING OF THE ENEMY'S RETREAT LINES IN SICILY. The drawing shows the Castiglione-Francavilla road which led up from the coast, and which was the target of continuous attacks—*Drawing by Roland Davies*

In the final stages of the Sicilian campaign, General Montgomery called for every available bomber, fighter and fighter-bomber to supplement his artillery. So effective was the response that soon reports were coming in of the retreat roads on the island being blocked after repeated Allied air attacks. The drawing above shows four of the types which played a large part in these continuous assaults: they are Bostons, Warhawks, Mitchells and Spitfires. The road is that which led to Castiglione from Francavilla and the coast, with Randazzo and the northern slopes of Etna indicated on the left. During the retreat, pounded from the land and from the air, the Germans issued orders that nothing was to be allowed to stand in the way of the withdrawal: all civilians—or Italian soldiers—were to be thrust aside ruthlessly. Throughout the campaign, the absence of Axis aircraft was most noticeable; on many of their sorties our aircraft were entirely unopposed in the air

The WAR in the AIR

The Concluding Stages in Sicily, and Britain's Growing Air Offensive on Germany

NOT one of the present three Axis partners ratified the Hague Declaration of 1907 prohibiting bombing from the air, although Great Britain, Austro-Hungary, the United States and Turkey did so. The declaration was therefore inoperative when the last war came.

Bombing began, in the primitive state of aviation of those days, with the observer leaning over the side of his open cockpit and dropping small 10-lb. bombs by hand. As the war progressed, bombing grew with the use of 40-lb., 112-lb. and even 520-lb. bombs. By the end of the 1914-18 war this weapon had developed to the point that, from the beginning of January 1918, to the end of November nearly 5,500 tons of bombs were dropped by us." 5,500 tons in eleven months!

The Germans probably thought they had shown the world something when they dropped 18,000 tons on Great Britain in the third quarter of 1940. Yet that was only half the tonnage dropped by Bomber Command in the second quarter of this year, and the total weight of bombs dropped by the *Luftwaffe* on Great Britain up to the end of June is less than half the 120,000 tons dropped by the home-based R.A.F. on Germany. This excludes bombs dropped on occupied territory and bombing by the North African and Middle East air forces and the American bombers.

Here is the comparative table of bomb tonnage dropped by the R.A.F. on Germany, and by the *Luftwaffe* on Britain:

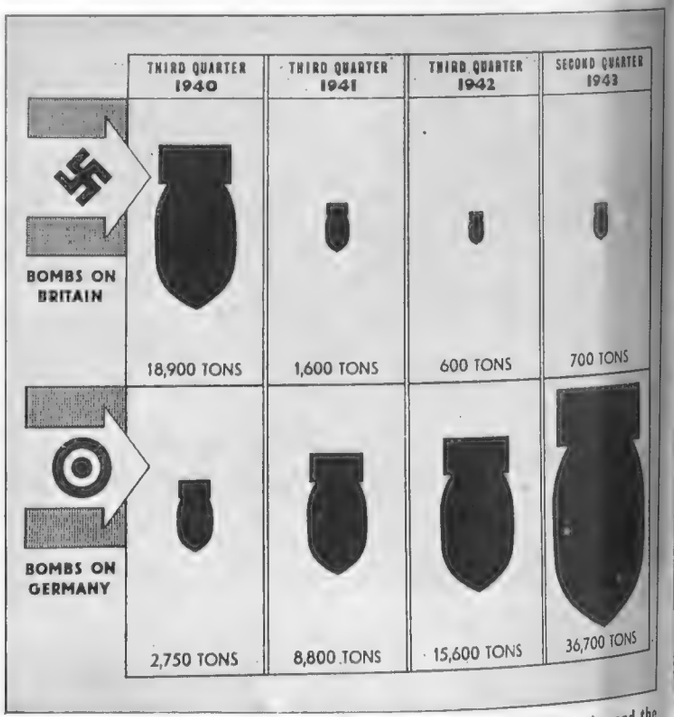
	R.A.F. on Germany	*"Luftwaffe" on Britain*
Third quarter, 1940	2,750	18,900
Fourth quarter, 1940	2,500	17,000
First quarter, 1941	2,700	8,000
Second quarter, 1941	7,200	11,600
Third quarter, 1941	8,800	1,600
Fourth quarter, 1941	4,300	600
First quarter, 1942	3,500	250
Second quarter, 1942	12,300	1,700
Third quarter, 1942	15,600	600
Fourth quarter, 1942	5,600	250
First quarter, 1943	17,400	800
Second quarter, 1943	36,700	700

Our bombing is growing and growing, in spite of the calls to provide aircraft for the Mediterranean, India and the Far East, while the German effort is dwindling and dwindling to a few hundred tons a quarter, aimed sporadically, and even that at a high percentage loss of planes involved.

"Blitz" is a German word and the verb "to Coventrate" is of Nazi origin. In operation, they meant 7,500 tons dropped on the London area in eleven months and 250 tons in the Coventry raid. Bomber Command dropped 9,000 tons on Hamburg in three hours on four nights.

The *cost* of the four Hamburg raids was eighty-eight aircraft, but many men were rescued from the North Sea and many more will be alive as prisoners of war. The *gain* is a first-class military target, with all its productive capacity in U-boats, aircraft and munitions of war, laid waste—far more economically than the German destruction of Stalingrad.

As there was no aerial bombing before 1914-18, the only comparisons must be made with artillery. The Battle of Waterloo was lost and won for an exchange of 37 tons of shells. The Boer War absorbed 2,800 tons—a whole war fought on little more than one night's bomb load of to-day! The Battle of Jutland took less than 2,000 tons. Some of the artillery duels in the last war involved 1,400 tons a day. At the battle of El Alamein our artillery fired 1,000 tons an hour for several hours.



AN IMPRESSIVE CONTRAST: The "Luftwaffe" offensive against Britain, and the R.A.F. offensive against Germany, since 1940 (see *accompanying notes*)

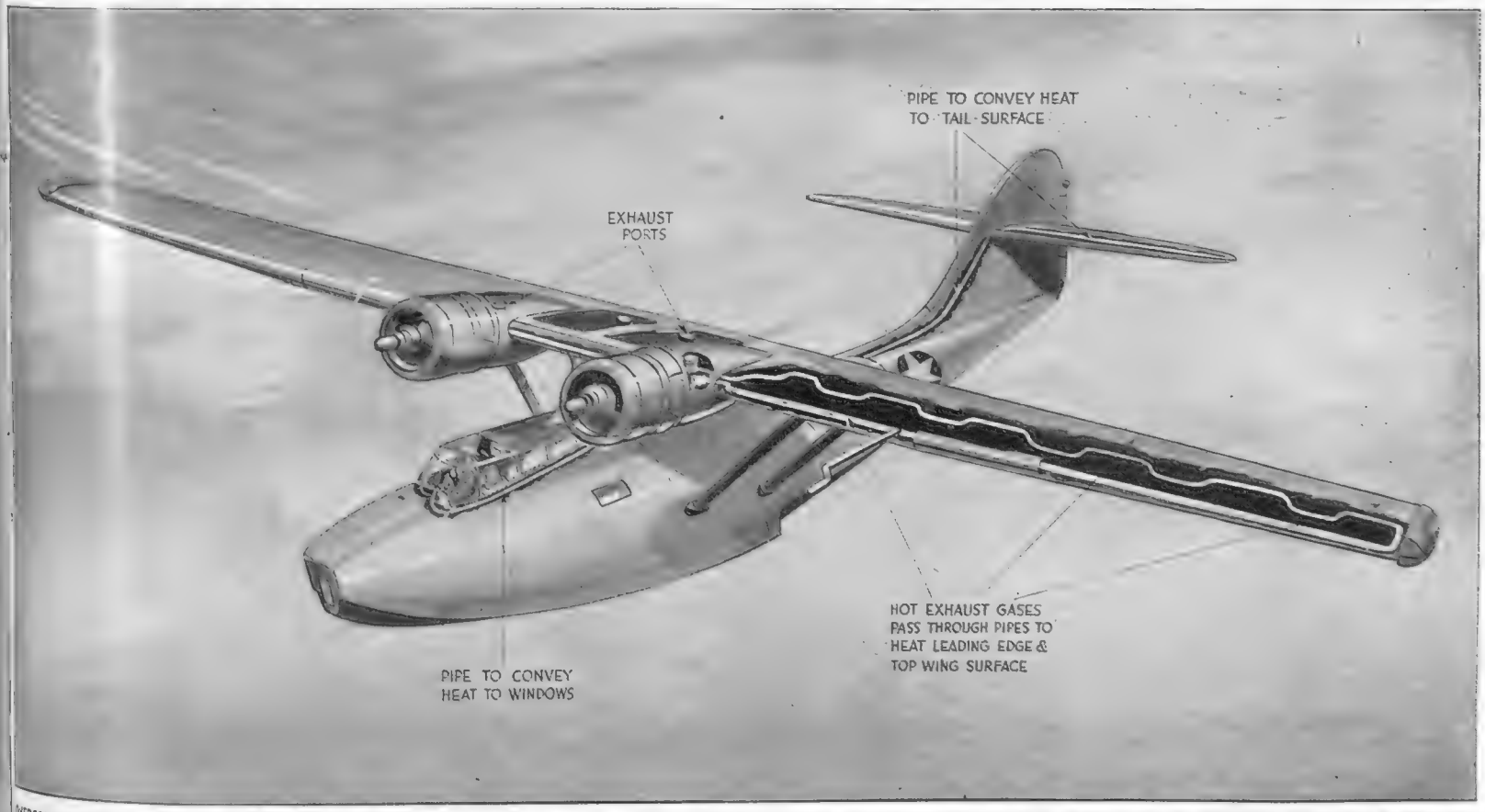
THE BEAUFIGHTER APPEARS IN A NEW ROLE—AS A BOMBER. It has recently been taking part in attacks against shipping in the Aegean Sea; and this drawing depicts it in action—*Drawing by Roland Davies*

The BEAUFIGHTER as a BOMBER

HOW THE BEAUFIGHTER BOMBER ATTACKS: A close-up of a Z-501 at the seaplane base at Preveza, on the west coast of Greece, with two R.A.F. Beaufighters coming in low to the attack

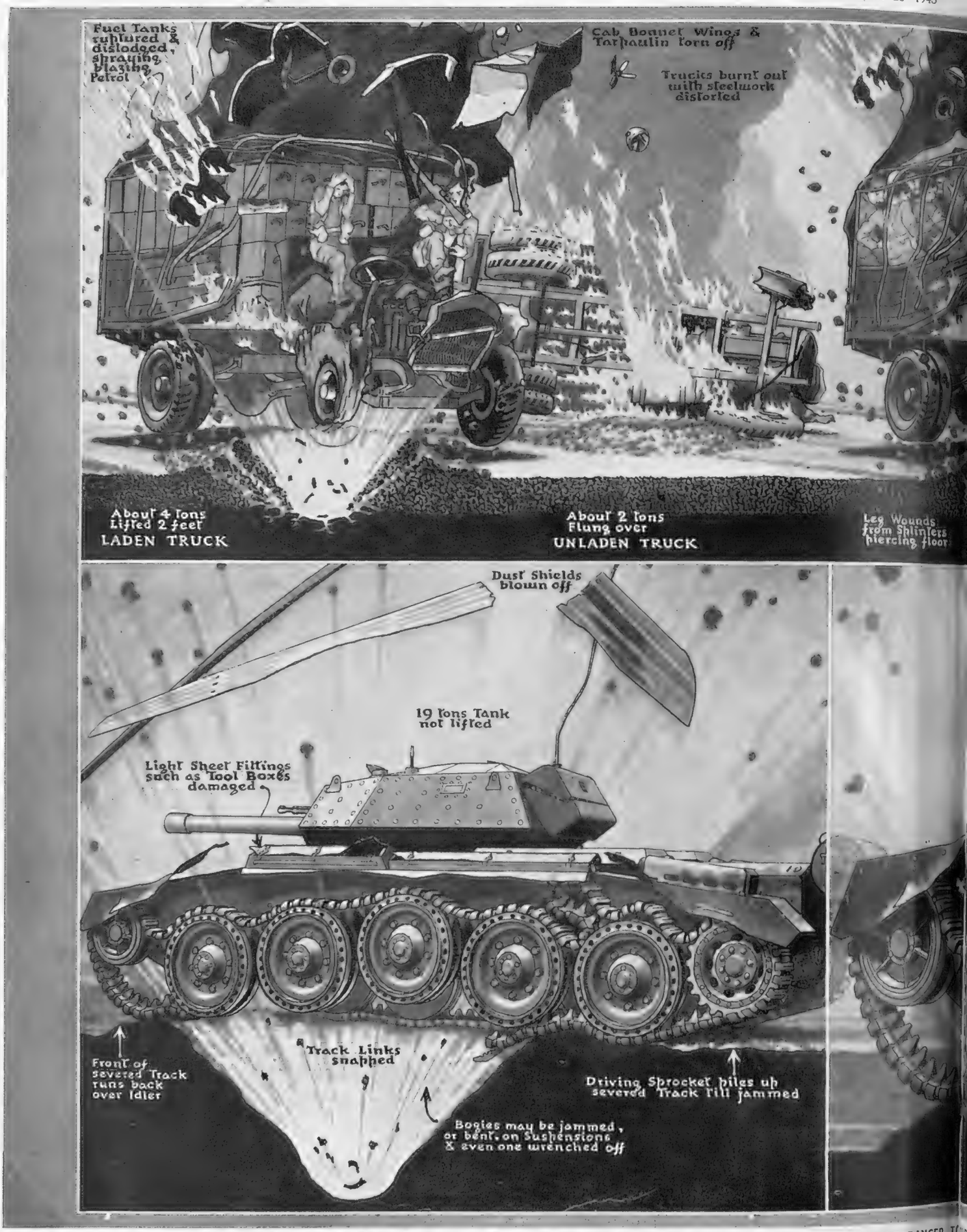
TWO ENEMY AIRCRAFT ON FIRE and much smoke rising from the Preveza seaplane base after it had been attacked by Beaufighters

The Bristol Beaufighter has had a fine record of service with the R.A.F. since the early days of the war as a long-range day and night fighter. Recently, it was announced that it was fulfilling a new role—that of a long-range bomber, and specialising in attacks on enemy shipping in the Eastern Mediterranean and nearer home. Presumably, its bombs are stowed in external racks under the wings, somewhat in the same style as the Hurri-bomber. The drawing and photographs reproduced here give an idea of the manner in which the "Beau" operates when on a bombing mission. This aircraft has a speed of over 330 m.p.h. and carries a crew of two—pilot and observer. Its nominal range is about 1,500 miles



OVERCOMING ICE ON A BIG FLYING-BOAT. A new de-icing system has just been announced in America: this drawing shows how it could be applied to a Catalina, and thus solve one of the major difficulties of long-distance flight over the sea—*Drawing by Roland Davies*

The chairman of the Vultee Corporation in California recently announced the development of a new de-icing system for aeroplanes, which is so effective that it is possible to maintain a constant temperature of 60 deg. Fah. at the edge of the wing even when flying in weather 40 deg. below zero. The invention utilises the basically simple idea of circulating exhaust heat from the engines through ducts to de-ice the wings and tail surfaces and de-frost the pilot's windscreens. It allows no ice to form on the plane whilst it is in flight; it begins to work as soon as the motors are started, thus melting any ice which may have formed while the plane was still on the ground; it involves no loss of efficiency, and can be used during combat and at slow speeds. The system was installed some months ago in a long-range Catalina flying-boat.



DURING THE ALLIED PURSUIT OF THE RETREATING AXIS IN SICILY, MINES PROVED THE GREATEST DIFFICULTY AND THE GREATEST DANGER TO … other cities. This series of drawings shows some of the principal types used by the German…

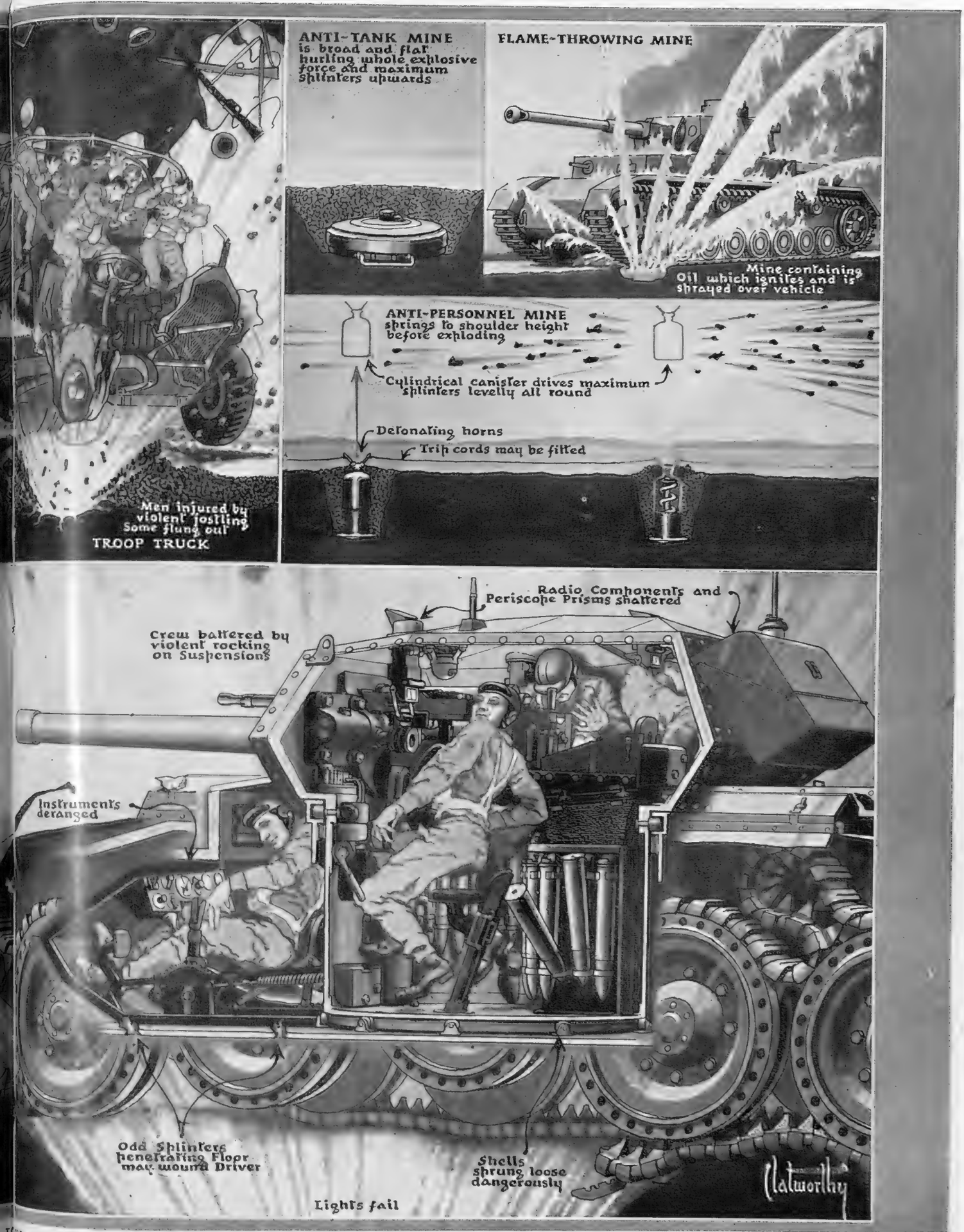
The diagrams reproduced on these pages demonstrate the manner in which mines are sown by the Germans, and the particular type of damage inflicted in roads, fields and beaches; these effects are quite distinct from shell or bomb effects. Mines wreck trucks, but they cannot wreck tanks—only disable them. The top left diagram shows trucks mined in three different conditions: all are practically certain to be burnt out. Incidentally, tanks are not burned out, because mines rarely penetrate to a tank's petrol. The whole story of the two upright trucks is not given. They crash back to earth very violently, aided by ensuing suction, and then topple into the craters so suddenly opened under them. Additional details to those noted can be discerned in the drawing: the engine and stripped chassis alone may sometimes be worth salving for repair where circumstances permit. Fragments of the mine case are driven wholesale through the underside of the truck and they are responsible for the more serious wounds.

The three small drawings inset in the upper right show the types being used by the German and Russian armies. The two principal ones used by the Germans are the anti-tank and anti-personnel mines. The first is broad and flat and explodes upwards: the second springs upwards first and then scatters its fragments at shoulder height. The third example is the one which has been tried out in the present offensive by the Russians. It is a flame-throwing device, the object being

The REVIVAL o… INSTRUMEN…

A Drawing to Show the Various… the Allied Advance, and the Mech…

—Special Sphere Diagram …



TO[illegible]R TROOPS. DURING HIS RETREAT, THE ENEMY SPEWED OUT MINES OF ALL TYPES AND IN LAVISH FASHION, even sowing them in the streets of Catania and man[illegible] how they affected wheeled transport and personnel, and tank-tracks and tank crews

[illegible] the MINE as an [illegible]T of WAR

[illegible]es Used by the Axis to delay [illegible] in Which they are Operated

[illegible] Clatworthy (Artist's Copyright in U.S.A.)

to set light to the tank which explodes it. The effect on a tank is shown in the lower diagrams—externally on the left, internally on the right—which depict a 6-pounder Crusader, the fastest big tank of them all. The mine has exploded under the nearside track. The damage always looks worse than it is: tanks are not nearly so easy to destroy as many reports suggest. A 25-pounder can topple a tank turret just over the side; but when that turret is found several yards away, it is the result of a substantial demolition charge having been placed deliberately inside the tank.

The track-belt is almost invariably parted at the point of greatest violence—or, more than once, between the bogies—but the driving sprocket carries on winding the broken end and, with the other track unbroken, slewing the whole tank round while the shocked driver recovers: the severed track assumes a most impressive tangle and may also be dragged off the bogies. But all tanks carry spare shoes and, if an hour or so is available, can put this right.

Internally, the crew are likely to suffer, though not fatally. The tank is too heavy to be flung up, but she can rock violently on her suspensions, and the men are flung about forcefully. They may be stunned, a shoulder may be dislocated, an arm or collar-bone broken. An unplugged splinter-hole in the bottom plating of the hull could prohibit the fording of a stream later

GUNNERS OF A MEDIUM REGIMENT OF THE ROYAL ARTILLERY DOING A PRACTICE SHOOT WITH THE 5·5 GUN-HOWITZER, details of which have just come off the Secret List. The guns are in position, and the rammer is just being thrown back after the shell has been rammed home

FIRING THE 5·5 "GUN-HOW," BRITAIN'S NEW WEAPON. Note the men all turning away from the gun to lessen the blast effect on the eardrums as the shell is fired

BRITAIN'S NEW GUN-HOWITZERS

The B.L. 4·5 and B.L. 5·5 Weapons, Details of which have just come off the Secret List

Mr. Churchill said, "On the six-mile front of attack we had a 25-pounder gun, or better, to every 23 yards." "Or better" meant the 4·5, which is a medium gun, and the 5·5, which is also a medium gun; either of these will fit the common 4·5/5·5 carriage.

At the beginning of the war the Germans outclassed us in medium artillery. Steps taken to redress this situation were well under way when Dunkirk came. After that event, the British Army had to be almost completely re-equipped with field-artillery. Second place had to be allotted to medium artillery for the time being. Then followed the opening of the blitz on Britain, making even more pressing demands for anti-aircraft weapons. Ultimately, it was found possible to give further careful study and to carry out exacting experiments which resulted in the production of the 4·5/5·5, coupled with a dual-service gun-carriage. The details of these weapons can now be disclosed.

The first of the guns, the B.L. 4·5-in., has well justified the time spent on its planning. It has a high muzzle velocity and amply meets the requirements of modern warfare. At ranges up to 20,500 yards, with a projectile of 55 lb., it is highly effective both as a lethal instrument and against earthworks. Mobility being an essential factor, the weight was kept down as low as possible consistent with strength. It weighs 16,048 lb. for gun and carriage.

(Continued below on right)

A B.L. 4·5 GUN-HOWITZER being operated by a Medium Battery of the Royal Artillery in Sicily. This picture was taken during an action north of Rammacca. Note the piratical attire of the gunners in the Sicilian heat!

THE LORRY BACKS UP PREPARATORY TO LIMBERING UP THE 5·5 "GUN-HOW": In the Tunisia fighting, sharpshooters of the Royal Artillery accounted for seventeen tanks destroyed and fourteen probables within the space of four days

NEW RECONNAISSANCE CARS

—One British and the Other Canadian

Interesting details of two new reconnaissance cars, one British and the other Canadian, are now available.

The first one is the Morris 4 × 2 (or two-wheel drive) Mark I light car, which has proved its worth in the Middle East. It has no chassis in the accepted sense, its main structure consisting of a body shell of welded armour-plating. A four-cylinder engine of 24·8 h.p. (developing over 70 brake h.p.) is mounted at the rear of the vehicle, and the drive is on the rear wheels only. The handy dimensions of the car, 13 ft. by 6 ft. 8 ins. by 6 ft., with an exceptionally small turning circle, make it very easy to manœuvre, while its low "silhouette," or height, is a great advantage in escaping the watchful eye of the enemy. Another feature of the car is that it has eight forward speeds, which is an important factor for work on hard roads or in cross-country conditions.

The armament comprises a Bren gun and a Boys anti-tank rifle, supported by a smoke-discharger, so that the car can lay its own screen. The driver sits in front in a central position, and has a bullet-proof look-out carried on a hinged panel, which can be opened fully when necessary. The commander is on the left and the gunner on the right, both slightly to the rear of the driver. The roof over the commander opens out and forms front and rear shields for use when firing the Boys rifle.

A manually-operated, open-topped, revolving turret has a slit in it through which the Bren gun is fired. This gun is so arranged that it can be used for A.-A. work in addition to all-round ground-strafing. Bullet-proof tyres, which allow the car to run "flat," enable the car to continue its journey even after being punctured.

THE BRITISH MORRIS MARK I LIGHT RECONNAISSANCE CAR which did good work during the battles in the Western Desert. Its main structure consists of a body shell of welded armour-plating: it is easy to manœuvre, with a very small turning circle, and it has been well equipped with guns

THIS IS THE CANADIAN-BUILT OTTER CAR, a fighting vehicle well known to the Canadian fighting men and which may well have played a part in their operations in Sicily. It has a four-wheel drive, and is well adapted for muddy and sandy ground

The other car, the Otter Mark I light reconnaissance 4 × 4 G.M. (that is, a four-wheel-driven car) is well known to Canadians, and may have played no small part in their operations in Sicily. It has been designed and built in Canada to the requirements of the War Office. The Canadian model is well adapted for muddy and sandy ground and, with its 34 h.p. six-cylinder engine fitted in the normal position (developing over 100 brake h.p.), its performance has been good.

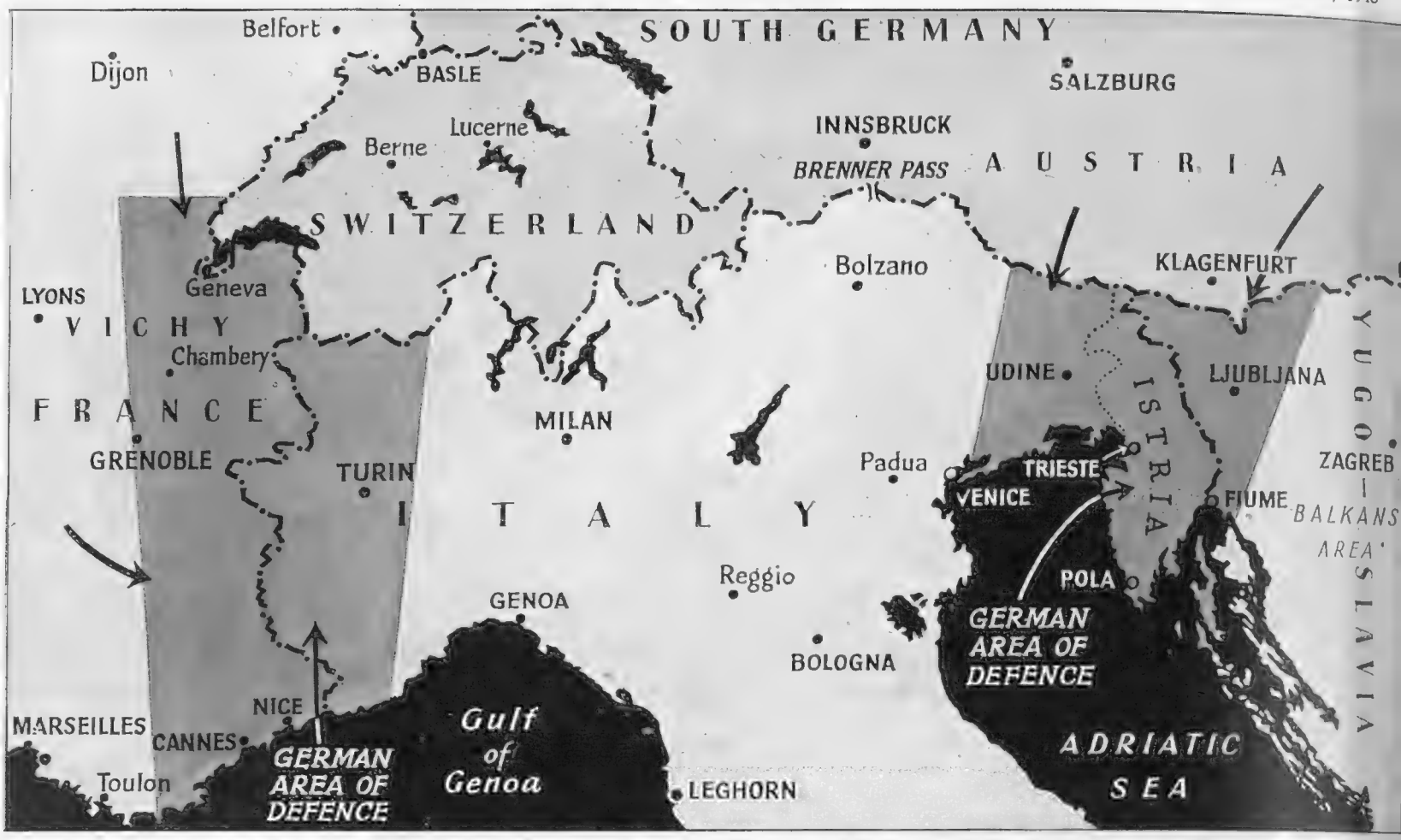
Like the British car, the Otter is also equipped with a Bren gun for A.-A. and ground work, as well as a Boys anti-tank rifle and a smoke-discharger. In some cars—both of the Morris and Otter reconnaissance type—the armament consists of a Bren gun only. These cars carry a wireless set. The crew of the Otter is the same—commander, gunner and driver—but in this case the commander sits in front with the driver, while the gunner is behind in the turret. Bullet-proof tyres again complete an efficient ensemble.

(Continued from above on left)

The comparable German weapon had now lost its prestige, for its performance was the projection of a 33·5-lb. shell (against 55 lb.) at a range of 20,800 yards with weight only a fraction less.

The second piece, the B.L. 5·5-in. gun, has likewise proved itself a valuable ally. It can throw a 100-lb. projectile with devastating effect at a maximum range of over 8 miles, exceeding its German counterpart by nearly 1,500 yards. Conservation of material had also to be carefully maintained, and this presented another obstacle. Guns could be destroyed in war with their carriages left intact, or vice versa. Ordnance experts therefore set themselves to the task of designing a carriage which would be equally available for either the B.L. 4·5-in. or the B.L. 5·5-in. howitzer-gun. This was no easy problem, for a common factor had to be arrived at between the actions of two pieces of ordnance. The dual-service carriage, fully pneumatised, finally passed its tests, and it then became possible to go ahead with its production on the scale necessary to equip our Army and our allies with suitable medium artillery.

On right—**HERE IS ANOTHER CANADIAN CAR.** It is a fighting vehicle with a performance described as "highly spectacular." The Lynx, as it has been called, is an armoured scout car which is one of the many types of military vehicles now being produced by the Canadian motor-car industry. The three Canadian automotive factories are now employing close on 30,000 people



GERMAN STRATEGIC PLANS IN NORTHERN ITALY: The two solid wedges now being built up along the northern Italian borders to east and west, in order to prevent an invasion of South Germany or Austria by way of France on the one hand and Istria on the other. It is to prepare these defensive wedges more fully that the Germans are now playing for time, with Italy as their apparently willing agent *(see article below)*

STRATEGY IN ITALY

Some Aspects of Coming Problems for the Germans in Northern Italy and Austria

—Illustrated with a Series of Special Diagrams

GERMANY may, in her desire to protect the Fatherland from actual invasion, seek to drive an iron wedge between Italy and the Balkans. This wedge would be driven through an area lying between Ljubliana (the Laibach of former days) in Slovenia, Zagreb (Argram) and Italy's acquired province of Venezia Tridentina. The outer strong-points of this area are Fiume, Pola, and Trieste, all in the recently-acquired province of Venezia Giulia. It is the natural area of attack for anyone operating from Austria. There is a straight line of supply from Vienna, passing Klagenfurt on the left. It was from Carinthia that the Austrians attacked in the last war. This wedge would separate the Balkans from any aid from Italian soil.

If Italy gave in and the Allies were able to march northwards, using the railways and air-fields, the Balkans would become vulnerable. The British Navy could move up the Adriatic, protected by air cover, and landings could be made in Albania, and a joining up made possible with the Serbian Patriots. The German High Command has probably envisaged something of this, and the holding of the bastion of Trieste and Ljubliana has become of urgent importance. A report came from Madrid on July 29 that German troops were occupying Trieste, Pola and Fiume, and the whole Udine region, having arrived from Klagenfurt. This was denied later, but the strategic necessity from a Nazi point of view seems to point to the likelihood of the occupations either now or in the immediate future.

THE IMPORTANCE OF THE ISTRIAN PENINSULA IN THE GERMAN DEFENCE PLANS. By occupying this wedge at the head of the Adriatic, the Germans hope to prevent an approach through the Balkans, by way of Laibach and Klagenfurt, into Austria

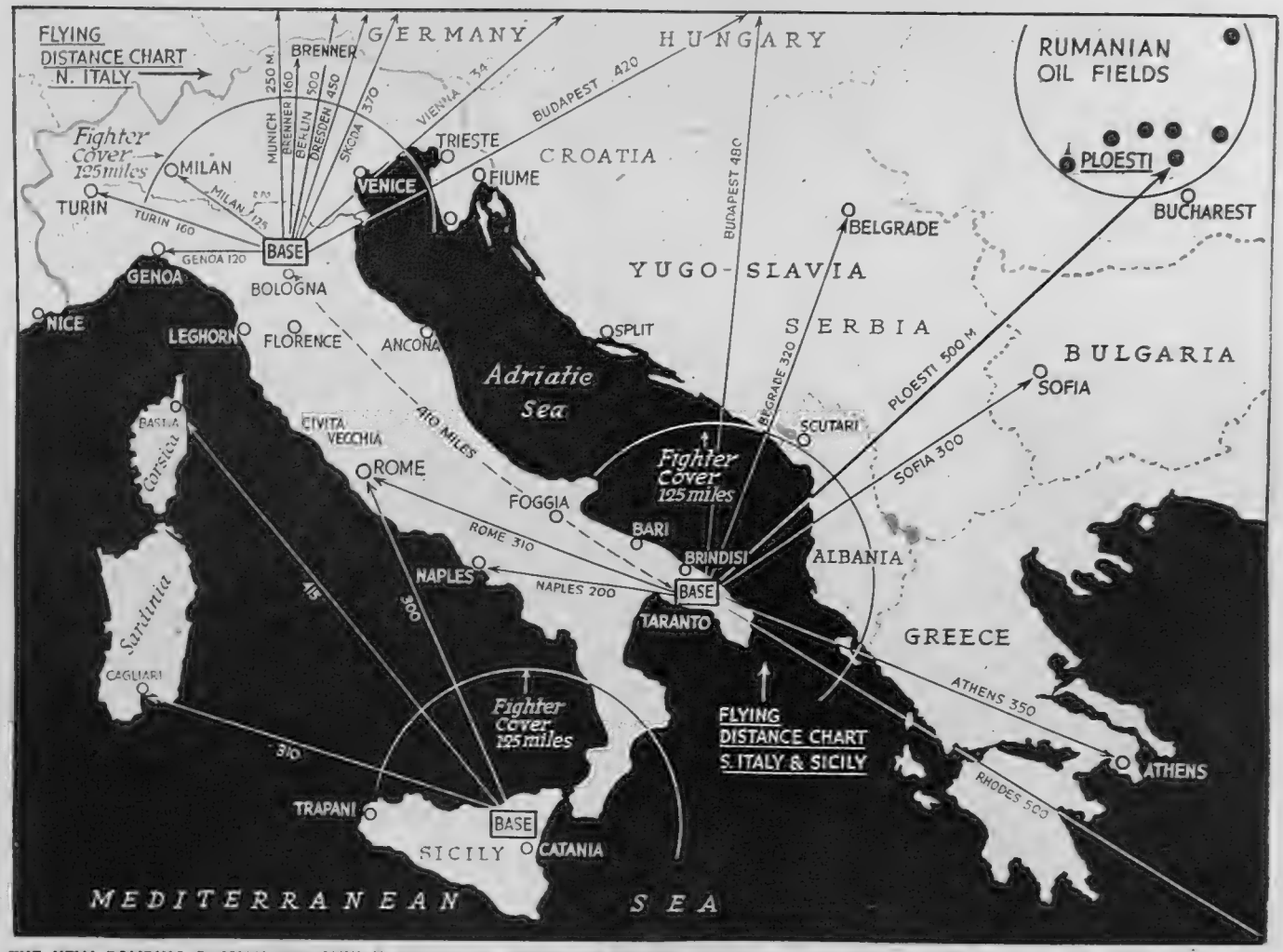
The importance of Slovenia has long been recognised by Germany, who, at the original conquest, divided it with her ally, Italy, keeping the northern part for herself. Last October this northern section was formally annexed to the Reich, and the inhabitants were informed that they were now German subjects, having to serve in the German Army, to speak the German language, and to guard against any activities directed against the Reich.

A close network of railways cover Slovenia with three main lines connecting Germany with Italy and the Balkans. Many petrol trains run daily from Rumania, bringing crude oil to Trieste to be refined at the Aquila and Fiat works. These railways have been the constant object of sabotage by the Croatian Patriots.

Ever since the Allies landed in North Africa last November the Nazis have been busily occupied in fortifying the Balkans, and the area of the Trieste bastion has not been neglected. The Todt organisation has been employed in making a continuous line of anti-tank defences and pill-boxes on the German-Croatian frontier while all the

***On left*—THE WEST COAST ROAD FROM NAPLES TO REGGIO DI CALABRIA.** The latter is the port on the toe of Italy to which all traffic must cross the Messina Straits from Sicily. It is of modern construction, although its vulnerability to air attack is great. On extremely steep gradients, such as is shown here (taken a few miles north of Reggio), reinforcement convoys moving north or south would have no opportunity to leave the road once they were damaged—nor would any but the slowest moving convoys be possible along such stretches

On right—The diagram given here indicates one very important aspect of probable consequences which might follow an occupation by the Allies of part of the Italian mainland. It may be true, as some strategists have pointed out, that Italy leads nowhere—for an invading army. But, under conditions of modern warfare, the occupation of Southern Italy would have immediate, and disastrous, effects for Germany; because with air bases on the mainland and with the growing weight of Allied air attacks, the whole of the Balkans would at once come under attack by Allied aircraft, and Germany itself would no longer be free from attack in those areas which hitherto have been able to enjoy a certain immunity from the heaviest air assaults. Here are the main points embodied in the diagram reproduced on the right: the hostile countries of Bulgaria, Rumania and Hungary would at once come under attack—factories, oilfields, mines, railways, would all be within reach of the heaviest attacks; from bases in central and northern Italy such towns as Skoda, Munich, Dresden, Berlin itself, would receive heavier loads of bombs than was ever anticipated by those comparatively remote cities; it might be possible to blockade the Adriatic by fighter patrols across the neck of that sea; Corsica and Sardinia would be cut off from supplies from Italy. It is for such reasons as these that Italy is now, rightly, regarded as Objective No. 1 by our Commanders!



THE NEW BOMBING POSSIBILITIES WHICH WOULD BE OPENED UP TO THE ALLIES after the occupation of the southern portions of Italy. Bulgaria, Rumania and Hungary would become vulnerable from, say, Brindisi; and the whole of Southern Germany would come within easy reach of bombers based at, say, Bologna (*see notes at left*)

Balkan passes were fortified. Increasing numbers of troops have been stationed in the area pending the possibility of the crushing of Italy. Blockhouses have been erected on the Zagreb-Fiume railway, and Zagreb railway station is protected by many pill-boxes. On the railways much work has been speeded up, repairing the damage done by saboteurs, and a strategically important road from Vienna to Zagreb has been extended.

Many industries have been removed from Western Germany to Hungary, where the rich coal-mines of Pecs have been invaluable. Great aeroplane works at Maribor, employing 12,000 men, have been started and other factories have sprung up in Slovenia and Croatia, where they gain hydro-electric power. The presence of these factories has caused great anxiety to Hungary who is fearing Allied air raids and in consequence is hard at work setting up and improving A.R.P. defence work.

Last month, the Axis made a determined effort to crush the Serbian and Croatian Patriots to clear the country from the persistent sabotage carried out with great skill by the guerrilla forces. It was urgently necessary to have the many divisions of German and Italian troops, then occupied in guarding the conquered territory, free for other service in the event of an Allied descent upon Italy or the Balkans. But, as on previous occasions, the Patriots avoided direct conflict, and the result was a general failure. Now that Italy is withdrawing more of her much-needed divisions for Home Service, the Bulgarians have been given the task of occupying the whole of Serbia, with the exception of Belgrade, which the Germans hold. The latest news is that German troops are pouring into Italy through the Trieste Gap by the three main lines. Slovenia has, therefore, become increasingly important to the German High Command for the holding of Northern Italy and the Balkans.

On right—**ITALY HAS BEEN INVADED MANY TIMES BEFORE! Here are a few of the invasions it suffered in historic times, and since the opening of the nineteenth century.** The early history of Sicily and of Italy is one of invasion from the sea. Following invasion by the Phœnicians in very early times, and Carthaginian landings in Sicily some years later, Dionysius came from Syracuse and landed on the mainland at Locri in 391 B.C.: after the disaster which followed this attempt, he made a second and successful attempt two years later. Belisarius did the same in 537 A.D., landing at Reggio to free Italy from the Goths. In 546 A.D., Belisarius again landed in Italy, at Ostia, to relieve a besieged Rome. In more modern times, the mainland has been invaded by Alphonso of Aragon, in 1435 A.D.; by Napoleon; by the British—in 1811-14; by the French in 1849; by Garibaldi in 1860. And, to-day, it is once again threatened by Britain and by her American allies

An ENGINEERS' WAR in SICILY

Overcoming the German Demolitions on the Coast Road up to Messina

—A Special Sphere Drawing by Edward Osmond

THE LAST PHASE OF THE SICILIAN CAMPAIGN WAS A RACE BETWEEN ENGINEERS. THE ENEMY **the fighting men could go ahead at the fastest pace. This was a scene on the Acireale-Giarre coastal secondary, or beach, road below the main road above, which had been demolished by**

A part from the extensive minefields which the enemy sowed so prodigally, great demolitions were carried out by the Germans during their retreat to Messina. During its last phases, in fact, the war in Sicily became a race between engineers—with the Germans destroying, and the British sappers reconstructing, bridge after bridge and road after road. In some cases, the demolitions were not entirely German—as the R.A.F. had also taken a hand and bombed many of the escape routes which had afterwards to be repaired by our own men. Up the coast road leading to Taormina and Messina, demolitions were numerous: both coast road and railway line had been cut in places and had to be repaired before the main Allied forces could continue to advance. Between Acireale and Giarre, the upper road had been blown up: along one short stretch three bridges were wrecked close to each other. But bulldozers were available, and soon they had established big diversions whereby transport could be kept on the move. Not content with the demolitions, the Germans had strewn near-by fields and roads with mines, as an added difficulty for the sappers. The narrowness of the coast road—between the mountains and the sea—made this area a profitable one for delaying actions. And by this means the Germans were undoubtedly able to get numbers of their men back to the mainland who would otherwise have been trapped, as in Tunisia.

On right—**HOW TOWN AFTER TOWN WAS ENTERED during the pursuit of the beaten Axis. This was the scene at the oddly-named town of Misterbianco, near Catania, as the British Army passed through**

DEMOLISHED AND THE ALLIED SAPPERS RECONSTRUCTED WITH ASTONISHING SPEED, so that road, which led to Taormina and Messina: it shows a group of engineers working on the the Germans. The railway to Messina is seen on the extreme right

On left—**WHERE THE SAPPERS REBUILT A BRIDGE FIVE TIMES!** When the enemy left Catenuova, he blew up the bridge at the entrance to the town and mined the roads and fields on each side of the approaches. The Royal Engineers erected a bridge which the enemy demolished four times by artillery fire. The fifth time the R.E.s bridged the gap under mortar fire

On right—**A ROAD BRIDGE DAMAGED—but not sufficiently to hold up the advancing British transports. The tank standing on its head is a German Mark III**

From the "DAILY DOZEN" to COMMANDO TOUGHNESS

How Physical Fitness is Acquired in the Army of To-day by Scientific Methods of Training Described by CHARLES GRAVES

THE scene was the Stadium at Stockholm. The occasion was the Ling Centenary. The date was July 1939. Every European nation had sent a group of athletes in honour of the greatest physical expert the world has known. The German contingent consisted of no fewer than 1,000 young men, stripped to the waist, mahogany-coloured. They ran in groups of 250, eight abreast, ten times round the Stadium to the sound of tom-toms. All they needed were assegais to make the illusion of a Zulu war dance complete. Then they rolled huge logs as though they were spillikins, in a series of superb, effortless evolutions.

Sitting in the audience was the Inspector of Physical Training of the British Army. That was the day which saw the birth of Army P.T., as it is known to-day, the start of the transition from the "daily dozen" to Commando toughness, from physical jerks to battle fitness. A completely new programme, he decided, had to be mapped out for (a) preparing troops for battle; (b) maintaining fitness; and (c) regaining it after wounds or ill health. It was not until after Dunkirk, however, that this type of physical training became universal, and men were taught to do all the things that the body should be able to do—crawl, walk, run, throw, lift, carry, heave, pull, climb and jump—first of all in P.T. kit, and finally in field service marching order carrying 40 lb. of equipment.

P.T. for the recruit in 1943 concentrates on physical and mental agility and alertness, which is just as important for an anti-aircraft gunner as it is for an infantryman. Competitive games and neuro-muscular co-ordination are stressed. The latter is particularly important for airborne troops, and casualties from parachute jumping have now decreased from 8 per cent. to less than 1 per cent.

The next stage is the development and strengthening of the skeletal muscles—the shoulder girdle and the abdominal muscles. Final endurance comes with the proper functioning of the heart and lungs, so that any fit infantryman can cover ten miles in two hours in full kit, or two miles in 18 minutes, in full kit.

In view, however, of the varied physical conditions in which recruits from Civvy Street presented themselves at their Primary Training Centres, it was found necessary to establish Physical Development Centres, where two resident medical officers are in close touch all the time with the physical training, with the result that 85 per cent. of the recruits are up-graded, 70 per cent. of them to Grade 1.

P.T., in effect, has become much more objective in its training of the body muscles to suit war conditions for the various arms of the Service and the different medical categories. It has developed into a dynamic attack on illness and disease, and the physical medicine it provides will have a tremendous effect on industrial health after the war. For one can take it as read that when the war is over, at least 1,500 P.T. instructors will be released, and will be able to carry out for works and factories and other civilian establishments what they have been doing in the Army.

At the outbreak of war, the Army had only 200 P.T. instructors. Now it has over 3,000. And the vocational courses that the 1,500 who are released will be able to direct should provide a nucleus of national fitness that could up-grade the whole nation from a health point of view. So it is strange that in the Beveridge Report, and the other schemes for ameliorating life in Great Britain after the war, nothing has been said about this most important aspect of citizen life. . . .

It was, I repeat, only after Dunkirk that the decision was taken to train all troops as objectively as possible up to Commando standard. This involved the responsibility of getting soldiers to crawl and run effortlessly, and to do all their military duties with the least energy and the maximum efficiency—in fact, to use their muscles intelligently.

To-day it is a routine job for six men to take a 6-pounder gun out of a tank ditch 10 ft. deep in 9 minutes. This can only be done by a rare combination of skill and muscular development. But the raising of the Commandos did much more than make German troops on the Continental seaboard jittery. It set a standard for physical fitness which has become a target for all other troops to aim at. And already the difference in fitness between the ordinary infantryman in a late battalion of a line regiment and men in the Commandos is quite small; while the Airborne troops can be regarded to be at least as tough, while the Foot Guards and Reconnaissance Corps have reached practically the same high level.

It is astonishing, indeed, to see the change in the physical fitness after a recruit has been in the Army only a few weeks. Boys of eighteen at the Primary Training Wing of the Royal Armoured Corps put on a stone in four months. And this is in spite of the puppy fat that many of them carry when they enter the Army. P.T. has certainly expanded since the days of "arms upward stretch" and "arms upward bend" of the last war. Assault courses, obstacle training and log exercises have inaugurated an entirely new standard of physical fitness among the troops. The campaigns of the Eighth Army in the appalling heat of the Libyan and Sicilian summer would have melted away but for the physical training the men had undergone at home.

Perhaps the most significant sign of the times is that whereas in the last war boxing was regarded as the best means for making the troops fighting fit, it has a purely recreational value in this war. Its place has been taken by close combat, formerly known as unarmed combat. Unarmed combat was tough enough, with its gouging, twisting, kicking, kneeing and other forms of thuggery, but close combat is tougher still, for it involves the use of the knife. If an armed patrol wishes to sabotage an enemy post, it is much better to knife the sentries silently and then apply delay-action and other bombs to military stores and other objects of interest than to shoot the aforesaid sentries and thus give the alarm.

Scientific thuggery is merely a development of P.T., and it is safe to say that the most highly-trained German troops with three years of campaigning are less than a match for our thugging parties. How could Hitler have foreseen the day when British troops would be trained to jump off lorries travelling at twenty miles an hour, without hurting themselves? How could he have guessed that his strong arm circuses which visited our Brigade front in the Vosges in January and February of 1940 would be tyros in comparison with routine British infantry patrols of 1943?

It is true that we do not teach Judo. That is a life study. But we certainly apply many of the principles to P.T. There is also the toggle rope.

As for log exercises, it is surprising how many movements some unpleasantly imaginative instructor has invented—log throwing from rank to rank; log circling; log passing forward between legs; log above head, knees and arms bending with high throw; log under arm with trunk bending sideways and arm reaching downwards; log under arm, trunk bending sideways with arms stretching sideways and upwards; log above head, trunk bending from side to side; log swinging; back-lying, log in crook of arms, feet supported, trunk raising and lowering; sitting alternate side of log, trunk lowering and bending forward (log in crook of arms); back-lying, log above head, leg raising to touch log.

Besides compelling a high standard of physical fitness, modern P.T. is an excellent medium for detecting leadership and officer-like qualities among the men. Leadership can best be judged, of course, in assault runs, obstacle courses and group tasks. Courage is best judged on the nerve-testing apparatus, though care has to be taken to distinguish between over-confident dash and the courage of the man who is not so certain of his ability or who has a more vivid imagination. The power of overcoming natural inability is closely linked with determination and resourcefulness. Powers of endurance are most obvious in road work and assault courses. P.T. has ceased, in fact, to be an artificial business in gymnasiums. It is carried out in all weathers out of doors. Of course, there is a certain amount of gymnasium work where the firemen's lift, three-handed and four-handed lifting is practised, together with vaults on and off the horse and rope-climbing. But it is the outdoor work which is paramount—the negotiating of high rope-bridges, rock-climbing, cat walks, stomach traversing, and the negotiating of barbed-wire fences, brush-wood fences, posts and rails, high walls, vertical logs, and climbing in and out of windows, which all tend to make our troops, both officers and men, the fittest in the world.

THE PRELUDE TO INVASION—The preparation of the "shock troops." Before the landings in Sicily, every stage of the invasion had been carefully rehearsed, in one form or another, by the Allied forces in North Africa. Hundreds of thousands of men underwent intensive invasion training to fit them for the tasks ahead. Here is one of the exercises: on the beach, strong barbed-wire entanglements were encountered and had to be breached by the troops as they swept forward

ALPINE TRAINING IN THE DAYS OF THE "PHONEY WAR" at the beginning of May 1940. This picture was taken just before the invasion of the Low Countries on May 10, 1940, when everything was calm and peaceful along the Maginot Line! A number of British troops were despatched to the famous French ski-ing centre at Chamonix for training in Alpine warfare methods: here they are setting out for a pleasant day's "work" on the mountain slopes

SAVE ALL YOUR WASTE PAPER FOR SALVAGE

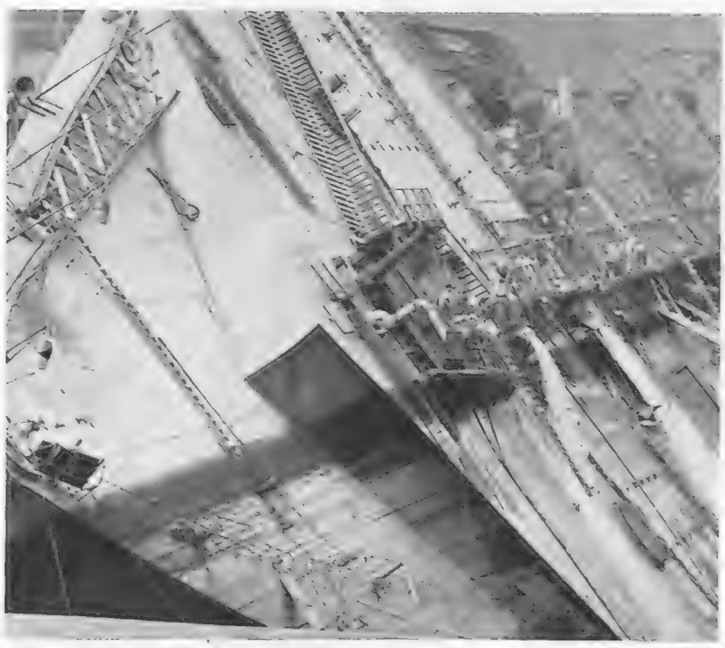
THE HUGE DECK OF THE "NORMANDIE" (NOW THE U.S.S. "LAFAYETTE") EMERGES FROM THE WATERS OF THE HUDSON RIVER. All her superstructure was cut away by under-water divers, and all her hatches had been sealed so that she could be pumped out

COMING UP TO AN ANGLE OF 45 DEGREES: the huge vessel rose with such rapidity that new numbers had to be painted on the measuring-pole. All top hamper has been removed, and sixteen large cargo ports had to be sealed before pumping operations began

HOW THE "NORMANDIE" WAS RAISED

We have already published in these pages pictures showing the salvage of the *Normandie*. Those given here depict the latest developments in this greatest of all salvage feats. The *Normandie*, renamed the U.S.S. *Lafayette*, a vessel of 83,423 tons, capsized after a fire on board some eighteen months ago. Since then, delicate operations to bring her up to an upright position have been continuous and successful. Every porthole and every cargo port had to be sealed: there were 356 portholes and 16 large cargo ports—many of them buried in 20 ft. of mud. The vessel was then divided into nineteen separate watertight compartments, and ninety-three pumps were installed. As a result of careful pumping operations over a period of days, the vessel began to right herself. She rose about 6 ft. in the first three hours. Now she is at an angle of 45 degrees, and will be towed out into the middle of the slip for further work. Never before in history has such a gigantic feat been attempted. The cost of salvage up to date is almost £1,000,000: it is estimated that another £5,000,000 will have to be spent on rebuilding the vessel. But, of course, this is far cheaper than constructing a new ship similar in size. Within a year it is hoped that the *Normandie* will be in service as a transport. When she capsized at her berth, one very great fear was that she would break her back as she rose with the tides and then subsided again on to a reef of hard rock just off the pier

On right—HOW THE "NORMANDIE" BEGAN TO RISE: a picture taken during the first stages, showing the 83,000-ton vessel already 11 ft. out of the water. Later she was raised to an angle of 45 degrees, as shown in the other pictures on this page



A CLOSE-UP OF THE DECK OF THE "NORMANDIE," showing the stream of water sent up by a few of the ninety-three pumps from the nineteen separate watertight compartments into which the sunken vessel had been divided. The pumping had to be scientifically controlled so as to keep the salvage operations under complete control: the process of righting the ship was, therefore, spread over a period of many days

AWAY FROM THESE WARS . . . .

Memories and Thoughts of the Years Between

—A Fortnightly Causerie **By J. G.**

SHOOTING Memories.—I do not suppose that in the post-war world many young men, keen on shooting, will buy, and carefully fill with details of their shoots, a leather-bound game-register or diary.

Such records belonged to a more leisurely age, an age when competition for big bags was rife and keen, when bags of 300 brace and upwards of driven grouse or partridges, or a thousand pheasants, were "entered" with pride of achievement, to be preserved and shown off, as deer-stalkers showed off the heads of "royals" killed in their forests, on the walls of their lodges. A shooting record is one thing, a shooting diary another. Few of us are word-painters; a diary requires word-painting to record the beauties of nature seen and felt in a day on the hill or in the coverts. A statistical record of bags, a nominal roll of the guns, the names of the beats, these are colourless to all but the writer, who, perhaps, can conjure up from the cold statistics the permanent impressions which matter, of a day long past but not irretrievably lost.

It is reasonably certain that the record bags attained in the years before and between wars will never be reached again. The preserving of pheasants on any scale comparative with the first thirty years of the century is gone for good—gone with the country houses, the keepers, the leisure and the private wealth of the privileged, gone with the coming of new importance attached to the national *trade* of farming.

True, the cultivation of the soil for grain-producing will benefit the partridges and has already done so, but they will be kept constantly in check by a much wider class of shooters. As for grouse, there is no economic reason why on remoter moors, not turned to industrial or agricultural uses, they should not rise again in regular cycles to bumper years. But by circumstances, unrelated to war or economic changes, grouse over much of Scotland have suffered a long, an abnormal, indeed a unique, eclipse which has no parallel for length in the records of shooting.

Especially is this true of the great moors of Inverness-shire, Moray and Nairn. The cause is alleged now to be due to the persistent prevalence of the sheep tick, which attacks the grouse. In my shooting experience in Scotland, up to the 1930s, the grouse cycle of abundance covered seven years, and one could look with fair certainty to a bumper year every seventh year. Thus 1908, 1915 and 1922 provided these bonanza grouse years. But from the last-named date a gradual decline set in, and the seven-year cycle broke down. On the famous Cawdor Moor—Drynachen—long tenanted by that kindly American, Percy Chubb, the great days lasted until his death. His successor, Lord Dulverton, never enjoyed a peak year, and gradually that great moor, on which constant bags in a day up to 400 brace were not uncommon, found it hard to achieve a maximum of 200, 100 brace. And to-day, given pre-war conditions, few of the famous beats would achieve fifty brace first time over. And what is true of this moor is more or less the story of its neighbours—Moy, Glenferness and the rest. For fifteen years and more they have bagged but a fifth down to a tenth of their annual averages before 1930, and not because of the economic difficulties, but because the grouse were not there to be shot. They will come again.

In these old shooting records, then, there is an Ichabod note. "Nevermore" is their keynote. Yet I cherish my game-book still. I find the bare statistics still potent to conjure up the "things that mattered," the beauty of the scenes, that indefinable thrill, made up in part of a spirit of competition and rivalry, no doubt. I am always ready to confess my sins, but a lust for records was not one of them. I always found records of kills sorry, repetitive reading, and most reminiscences of sportsmen dreary stuff.

"Once More to Recapture."—Yet I feel sometimes a *nostalgie* for the "great days," or for that part of them which was innocent and poetic, and I should like once again to recapture the nobler, permanent sensations of one or two of the great days of shooting in which I took part. Once again (if the period of waiting were not too long) I should like to stand in my butt in the line at the Bald Tailor and see the foreground rise at me, a solid mass of slow-moving grouse. Once again, to try for a right and left of those screamers that came high and fast in the sky over the Corrour. Once again to sit in my butt on the Poletrap, with the placid blue waters of the Moray Firth beyond the brown, loch-pocked foreground, dividing the blue low hills of the Black Isle from the mainland, very certain that after an hour of thrilling business I should count twenty-five or thirty grouse laid out at the entrance to my butt, with two or three blackcock and some hares for padding. Competitive spirit? No doubt; but the scene and the setting, the air and the good company, adorned and dignified, and almost justified, the killing. After hot months of London on an office stool there was nothing quite like the delights of this change of scene, of air, of occupation.

The sweets of privilege left no bitter taste in *my* mouth. And golden, too, are the memories of golden days in golden stubble fields in Norfolk, Suffolk and the Border Country, when the partridges flew high and fast over low fir belts and over hedge-rows coloured like scarlet and brown old tapestries.

And golden the memories of dawn flights among the golden reeds of the Broads when the calls of half-a-dozen varieties of wild-fowl keyed one up to wait for the burning moment of the first shots. Even from the covert-side there come back golden memories. A bag of 700 pheasants may sometimes have been—nothing but a headache.

But it was not always so. Pheasants could be made to fly like rockets, if often they skimmed like soup-plates. I am not ashamed to recapture the thrills of pheasant stands below hangers and in deep combes, in Devon, Wiltshire and Sussex, when every cock clean-killed flattered a vanity which perhaps was not wholly base.

A VIEW FROM THE AIR OF THE CITY OF QUEBEC: On the heights above the waterfront is the Chateau Frontenac, the Prime Minister's Headquarters, where British and Canadian Chiefs of Staff have worked during the talks between Mr. Churchill and President Roosevelt. The Chateau is a hotel which "looks like a cross between a medieval castle and a railway station." The Citadel, where Mr. Churchill has been staying, is on the right of the Chateau Frontenac: the Heights of Abraham, where both Wolfe and Montcalm fell, are to the left of the picture

Olim Meminisse.—As an aid to memory, the names of the guns and of the beats at least are curiously effective. Any form of diary, kept over forty years, is a *memento mori*. "Time and chance happeneth to them all." So very many of those companions in kilts or plus-fours have gone the way of all flesh. So many of the old beats have been turned to other uses. The coverts have been converted to paper and pit-props. The fields are aerodromes and factories. Some of the lochs and waterways make electric power, and power lines bisect the old lines of butts. Yet for every man what was, *is*; it is still a part of himself, for he is a part of all that he has seen and done.

"You may break, you may shatter, the vase, if you will,
But the scent of the roses will hang 'er it's still."

If the days of our roses are over, if the time for roses is past, at least they were roses of Youth; and, indeed, there is no reason to be ashamed of their scent.

As well might you condemn the Tudors for wearing trunk hose or the Romans for killing space with horse chariots. What was, was, and what is, is; and a man's life is comprised of his past and his present. Memory has its fit place, and it 's a poor spirit or a guilty heart which fears to remember.

From the days of the "battue" there have always been voices raised against the cruelty and indignity of blood sports, of grown men stimulating the thrills of battle where the danger was all on one side. But at the height of the criticism, cruelty was not of one class only, any more than it was in the days of bear or bull baiting, or, for that matter, Jew baiting.

Homo sapiens is a curious blend of ferocity and gentleness, of kindness and cruelty, of insensate lust and inherent pity. And Nature is no model for man of the gentlest virtues. A "game-book" is but a Newgate Calendar if its statistics only revive memories of bonanza killings. But if it bring back, fresh and sweet, the wind on the heath, the blues of the sky and the sea and the distant hills, the gold of the gorse and the purple of the ling, the russets and gold and crimsons of the October fields, the faces and characteristics of good companions dead and gone, it is a document well worth its place on your book table.

The New London Stage Productions

Reviewed by PHILIP PAGE

WAR AND PEACE (Phœnix).—Some years ago a play was written about Oliver Cromwell which was as long as the Cromwell Road and just as dull. *War and Peace* (I am speaking of the play founded on Tolstoy's novel) is mostly about Napoleon, and is longer and even duller. The programme is the most formidable I have ever seen; the names of fifty-eight players are printed on it, in addition to five stage managers and a stage director; but that did not make for any decrease in the monotony. I thought the best performance was that of Mr. Henry Oscar as the narrator, who sat on the stage throughout and in a beautifully modulated voice told us what was supposed to be happening. But a good play does not need such a device and should be able to tell its own story. Mr. Peter Illing did not look like Napoleon, but a distinguished fellow-critic has told the world that he sounded like Napoleon. Alas, my own reminiscences do not go back as far as that. Mr. Frederick Valk, as a Russian general, shouted in so stentorian a fashion that he could probably have been heard in Moscow.

Blow Your Own Trumpet (Playhouse).—Young Mr. Peter Ustinov is a Russian, but his work does not in the least resemble Tolstoy. The first play of his I saw was so promising that *Blow Your Own Trumpet* I found disappointing, if only by comparison. It has merits—clever characterisation and a certain liveliness. But it is without any sort of dramatic form, is quite plotless, and is altogether too slap-dash an affair. I am told Mr. Ustinov wrote it in three days. It seemed much more as if it had been dictated to a shorthand writer in three hours. Matters were made no better by either the production or some silly Surrealist scenery. But there were some good performances, notably from Mr. Esmé Percy, as a would-be Sir Thomas Beecham, and Miss Marione Everall.

Misalliance (Arts).—Mr. Bernard Shaw's thirty-three-year-old *Misalliance* is no more a play than *Blow Your Own Trumpet*. It is just a protracted conversation—rather too protracted (2½ hours) to be played without an interval. Yet it is so witty that I am surprised that it has been so rarely revived. The present revival is perfectly produced and acted, as are all the productions in this "Festival of English Comedy." Mr. Peter Jones as a youthful Communist (1910 vintage) scored triumphantly.

THE WOMEN'S LAND ARMY REAP A GLORIOUS HARVEST FROM LAND WHICH HAS NEVER PREVIOUSLY BEEN PUT UNDER THE PLOUGH: A squad of girls at work gathering up the sheaves on the South Downs within sight of the English Channel

The WOMEN of BRITAIN

Girls of the Land Army are now, once again, playing an important part in the reaping of the greatest harvest Britain has ever grown. Land that once was waste and desolate before the war is now rich with golden corn. One of the biggest stretches which is helping to fill the country's larder for the coming winter is on the South Downs overlooking the English Channel. Here, thousands of acres of downland which have never before been under the plough are now producing some of the richest wheat in Britain. Reclaimed in the early months of the war by unemployed men whilst battle was daily raging in the skies overhead as the *Luftwaffe* tried to invade this land, these wide acres are now being reaped by girls of the Women's Land Army who drive the tractors and operate the combines—for without mechanised farm equipment the 1943 giant harvest could not be got in. Equally, without the Women's Land Army many of our agricultural plans, now coming to fruition, would have been quite impossible of accomplishment

THE PROVOST WING OF THE A.T.S. UNDERGO A RIGOROUS TRAINING. The preparation of the women Military Police for their Provost duties is carried out at a Depot and Training Establishment in the South-Eastern Command. Physical fitness is necessary for the tasks these women have to perform: hence the rigorous instruction in P.T.

SOLVING THE HOLIDAY PROBLEM: Mrs. Chumbley, of Redditch, has solved it for herself and her family by buying a gipsy caravan and borrowing a horse! With this transport she has travelled from Redditch to South Wales, by way of some of the most beautiful country in Britain. The caravan is able to cover some twelve miles each day

BRITISH WOMEN ARE NOW BEING INCORPORATED IN THE CANADIAN FORCES: Those English girls who have married men of the Royal Canadian Air Force in this country are now being admitted to the W.I.D.S.—the Women's Division of the R.C.A.F. Many young wives have been permitted to transfer into the new branch from the A.T.S., W.A.A.F. and W.R.N.S. The women in this picture are all British-born: they have just been issued with their new equipment at a Canadian training depot in this country

CURING NERVES IN THE A.T.S. Women of the Forces suffering from war strain, or needing understanding treatment, are being rehabilitated at a Neurosis Training Centre on the northern outskirts of London amid pleasant and peaceful surroundings. This A.T.S. patient finds modelling in clay a fascinating hobby: she is one of a class at the Centre at Mill Hill Hospital

The World of Books—By Vernon Fane

STORIES OF PEOPLE AND PLACES

A Dramatic and Inspiring Play; An American Woman's Study of Japan; A Causerie on the Modern University; A Small-town Swashbuckler and the Thriller of the Week

MR. MAXWELL ANDERSON is one of America's most distinguished playwrights, and I understand that his most recent play, THE EVE OF ST. MARK (Bodley Head. 5s.), is now being performed in this country to audiences of American soldiers. It is a play with a simple theme, written by a man who perhaps alone in his country has the command of the poetry of the vernacular. Only such a man, and perhaps Clifford Odets is another, could make so straightforward an idea both dramatic and inspiring.

From a small American farm comes Quizz West, and like every other soldier, he feels a stranger in his barracks. Behind him he has left a loving mother, a staunch farmer, who is his father, his brothers and Janet, the girl he met in New York. His new comrades include a cynical poet, a hulking sergeant and a tough Irishman.

The simple-hearted Quizz uses the thought of Janet to steer him like a north star through this strange new world. On his embarkation leave he and she say all the things that lovers always say. His unit sails for the Philippines, where malaria claims victims. The soldiers hold the island heroically, and are given permission, though not encouragement, to retire.

On the Eve of St. Mark Quizz appears in a dream to both his mother and his girl, and asks them what he should do, but in real life Quizz refuses to hear the voices of these dear ones calling him back, and by his example the whole unit holds on. At home the mother and Janet learn that he is missing, and understand why he could not heed their advice. Finally, Quizz's brothers join up, and their father gives them his blessing. "Make a new world, boys. God knows we need it."

The vivid and familiar emotions of brave soldiers, parted lovers and lonely women are re-created here with the direct force of genius. Yet, in spite of the universality of the theme, each of the types is essentially American, and for this reason we may read it, or see it if it is later produced here for general audiences, both for its dramatic values and for the better understanding that it may give us of one of our Allies.

THE FIRST MUHAMMADAN GIRL TO JOIN THE WOMEN'S AUXILIARY CORPS IN INDIA. Private Begum Pasha Shah is the nineteen-year-old daughter of Mr. A. G. Shah, Chief Instructor in Urdu to British officers at Poona. She is the first Muhammadan girl to join the W.A.C. (India). She joined a year ago, after hearing a radio appeal by Lady Linlithgow to the women of India: she was then studying at a college in Trichinopoly in South India. She was considered suitable for a commission, but her father insisted that she go through the ranks and earn her promotion. She is at present a clerk in a R.A.F. orderly room in Southern India. She speaks seven languages: after the war she intends to study at London University. Her great-grandfather was King of Khorasan, a province of Iran, of which her uncle is now the head. Her mother, niece of an Indian Prince, is of Persian descent

"Faster, faster!" said the Red Queen to Alice. "It takes all the running you can do to keep in the same place." In summing-up her own book, the story of an American woman's visit to Japan just before the war, Miss Helen Mears quotes these words to express her own view of the disparity between the demands which the machine age imposes on modern Tokyo, and the beliefs held by the majority of the Japanese people.

YEAR OF THE WILD BOAR (Peter Davies. 12s. 6d.) has been written with an admirably open mind and is all the more instructive for this reason. One could hope that the next few years might produce, as it were, a companion volume written by an Englishwoman, of whom there must surely have been many in Japan at that time.

In the course of her stay, which was with such an English woman-friend who kept house in Tokyo, the author was drawn into the inner circles of life there, and found herself bewildered, fascinated and sometimes terrified by the Japanese personality. She visited festivals and religious entertainments, and wandered into fishing villages and country hamlets. She began to understand the dogmas and superstitions that lie behind the thin veneer of modern industrial Japan. She came to believe finally that although Japan might be a great modern power with its armies overrunning a neighbouring country, and its industries competing in European markets, it was still fundamentally a country in which the nature gods were worshipped. The author also discerned that the Government used that familiar mythology to exploit the people.

I read Mr. Bruce Truscott's REDBRICK UNIVERSITY (Fabers. 10s. 6d.) with the greatest interest. It is a discussion on the problems of the modern university, beginning with a survey of the universities of England, which, of course, consist of Oxford and Cambridge and the Rest. The author christens the first Oxbridge and the second Redbrick, and proceeds to examine their comparative advantages and disadvantages, both from the point of view of the student in residence (or in attendance) and the working professor, lecturer or "Don."

For the most part the author is at pains to show wherein Oxbridge is lacking in virtue, and he has much to say against the waste and expense of the loose and casual ancient system. On the other hand, he sees little but merit in the more highly organised, more up-to-date methods of Redbrick. He concludes by showing that a democratisation and modernisation of our university system will be essential elements in the educational reform which must follow the war.

I found this book fascinating, and only wish that the author had not fought so heatedly to deprive Oxbridge of laurels with which to decorate Redbrick. His excellent arguments would have more weight if he were not so transparent a partisan.

A FAMILY REUNION FOR THE V.C. MAJOR who was once thought to have been killed. Huntington's V.C.—Major Herbert Le Patourel—who was mourned as dead for two months, returned home a few days ago, having been repatriated from Italy. He was awarded the V.C. after being left as a casualty on a Tunisian battlefield, and was nursed back to health in an Italian prison camp. The twenty-six-year-old hero arrived unnoticed at York, and spent the evening at a quiet family reunion in Huntington. It was a great moment for his mother and sister (Mrs. Le Tocq), who on January 1 received official notification that the Major had been killed in action, and mourned him until the end of February, when the Red Cross announced that he was a prisoner. Leading four volunteers under heavy fire, he attempted to dislodge a group of enemy machine-guns. He rallied his men several times, and silenced several guns. Finally, when the remainder of his party were all killed or wounded, he went forward alone with a pistol and some hand-grenades. He did not return, and it was considered that he had given his life. It is understood that the Channel Islands Society also proposes to honour Major Le Patourel for his exploit. In this picture the Major is seen with his mother and sister (Mrs. Le Tocq) and his small niece, Allison

DANIEL CAVOUR (Bodley Head. 9s. 6d.) is one of that sound, tried pattern, the American success story. It is written well within the confines of the local-boy-makes-good formula, and is the type of novel which might have been written superbly by Sinclair Lewis at the height of his powers. It is said to be the story of a modern buccaneer, but I find that a mis-statement in so far as it is both old-fashioned and nerveless.

The buccaneer, to most of us, is an unscrupulous, colourful figure who makes up by his bounding vitality and spirits for a complete lack of moral sense. The small-town buccaneer of Mr. E. S. Evens's novel has a correspondingly small scope. His brutalities seldom extend farther than the corner drug-store, and his financial successes are typified by the purchase of a single painting by Turner.

More than the effect that money was to have on Daniel, the author seems concerned with the effect that Daniel was to have on the three or four women in his life; the lusty Marta (the only near-attractive character in the book), the practical spinster Doris, the frigid patrician Vicky, and the colourless Gretchen. One of them loved him, two of them enjoyed him, and one felt for him a half-repelled fascination which was enough to stimulate him.

Mr. Evens tells his story with surprising conviction; surprising, since for the reader the issue was never in doubt. Daniel was bound to make his money, bound to break some hearts, and bound to die in arid self-pity.

THE U.S. AMBASSADOR'S SON, now serving with the American Army Air Force in Britain. Second Lieut. John G. Winant, jun., is the twenty-one-year-old son of the American Ambassador to London. He is now in the U.S. Army Air Force, and he has already taken part in sorties over enemy territory. Lieut. Winant graduated at the Flying Fortress Training School in Miami, and his first job was to fly a Fort across the Atlantic to this country. Above he is seen in the cockpit of his plane after having just returned from an operational flight over hostile territory

The best of this week's thrillers is HERO BY PROXY (Gollancz. 8s. 6d.), which has been described by its author, Mr. Darwin Teilhet, as a "kaleidoscopic adventure." The background is Central America, the time approximately the present, and the pace terrific.

Two American brothers, alike enough in their thin, gangling frames, red hair and imperviousness to physical danger, and utterly unlike in their choice of professions, get themselves thoroughly embroiled in Central American politics and fifth-column activities. There is the usual amount of gun-play, which seems inseparable from either of these pursuits, and as a result of this, the news-hawk, lady-killer brother Terrance is shipped back to the United States, leaving a perplexed but dogged Phineas to shelve his business as a cement salesman and dive into intrigue of all sorts.

This story has everything from Nazi-financed elections to jungle man-hunts. It has thugs, deserters, racketeers and mystery men of every size and of every degree of malevolence. With them, pursued by them, or in his turn pursuing, Phineas stumbles over corpses, scales roofs, crashes through skylights, drives over precipices, careens around in a full-sized tank, and generally raises Cain.

There is a pretty senorita, but to make things more difficult she is dressed as a man, and Phineas, who hasn't much time to spare in all this, fails to recognise her as her lovely self till the last chapter. It is all great fun, and has scarcely any educational value.

The Shaftesbury Homes and "Arethusa" Training Ship

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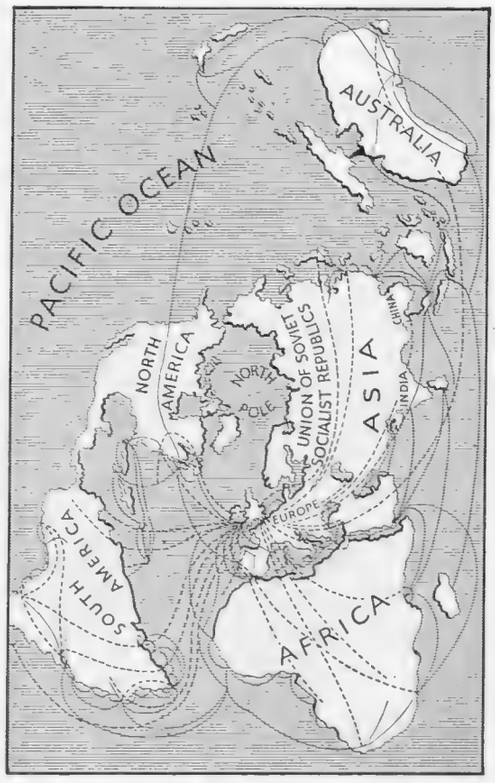

THIS brings to a close the series 'Communications Old and New', which has told of man's ingenuity in conquering distance. Tom-tom echoing through the African bush; the famous Grecian runner who brought tidings of victory, and the winged messengers of the Pigeon Post carried news from afar.

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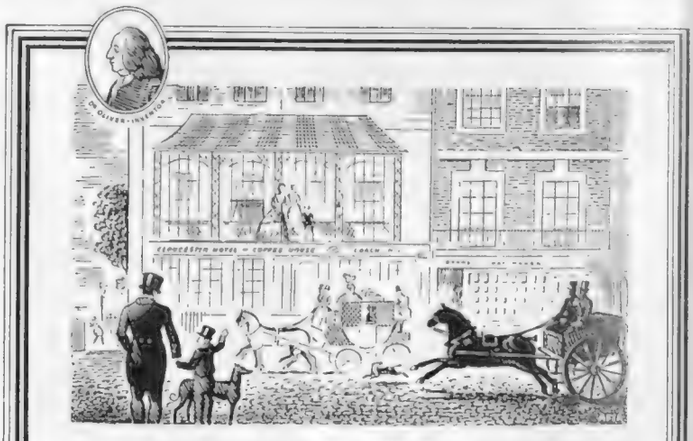

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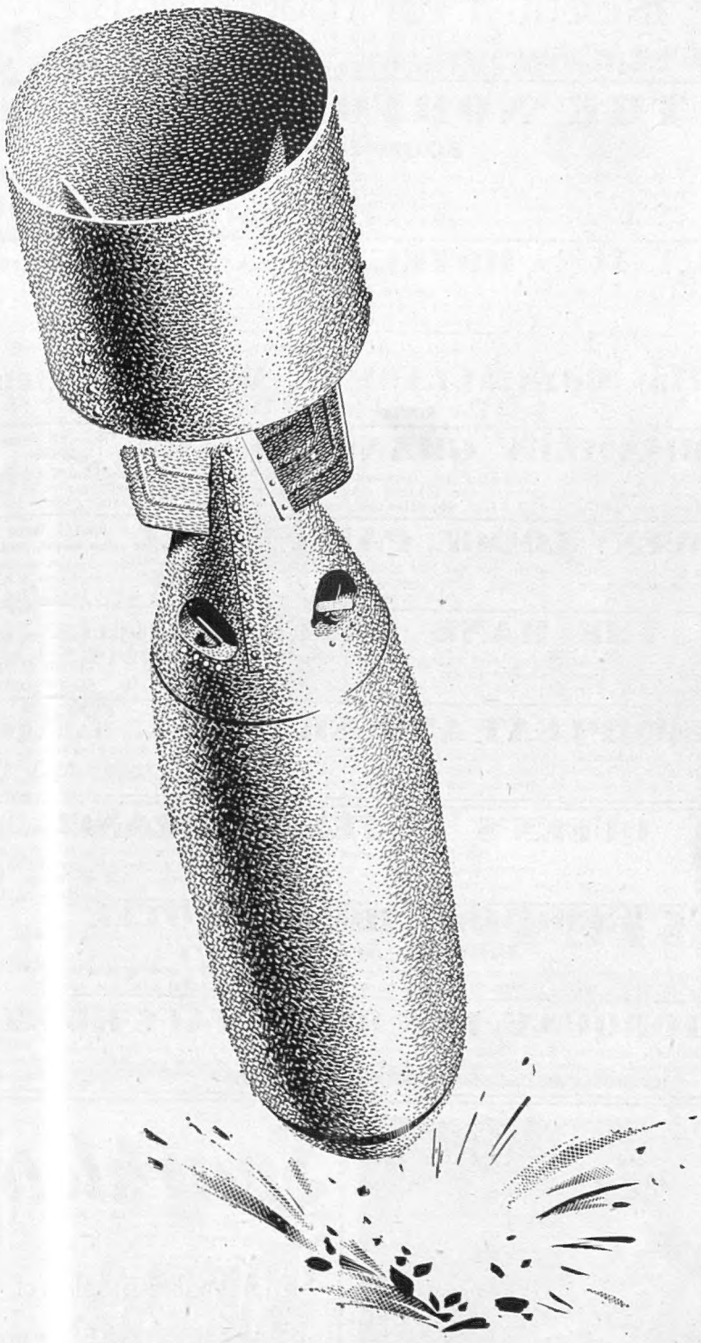

I am the Bomb..

I was once the North and South gates of a London Park. When these gates were closed, small boys would clamber over me to gain the freedom of the City. Now many of them, grown to manhood, are fighting to gain freedom for the World. Behind them, staunchly helping in the fight, is the Motor Industry of Great Britain, making every kind of weapon vital to our cause.

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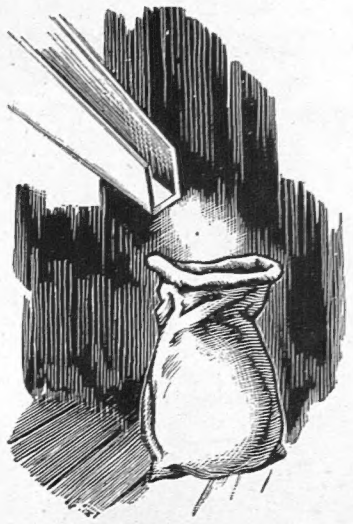

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The help which you are able to give may seem small—but multiplied many times it will result in a sum large enough to keep our vitally important work going . . . to avert the tragedy that Cancer would bring to thousands more every year if we were not here to help. We must depend upon ***you*** to help us maintain our humane work. You will not fail us, will you?

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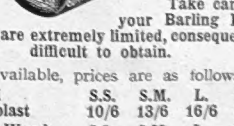

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Standard or Sandblast	10/6	13/6	16/6	20/-
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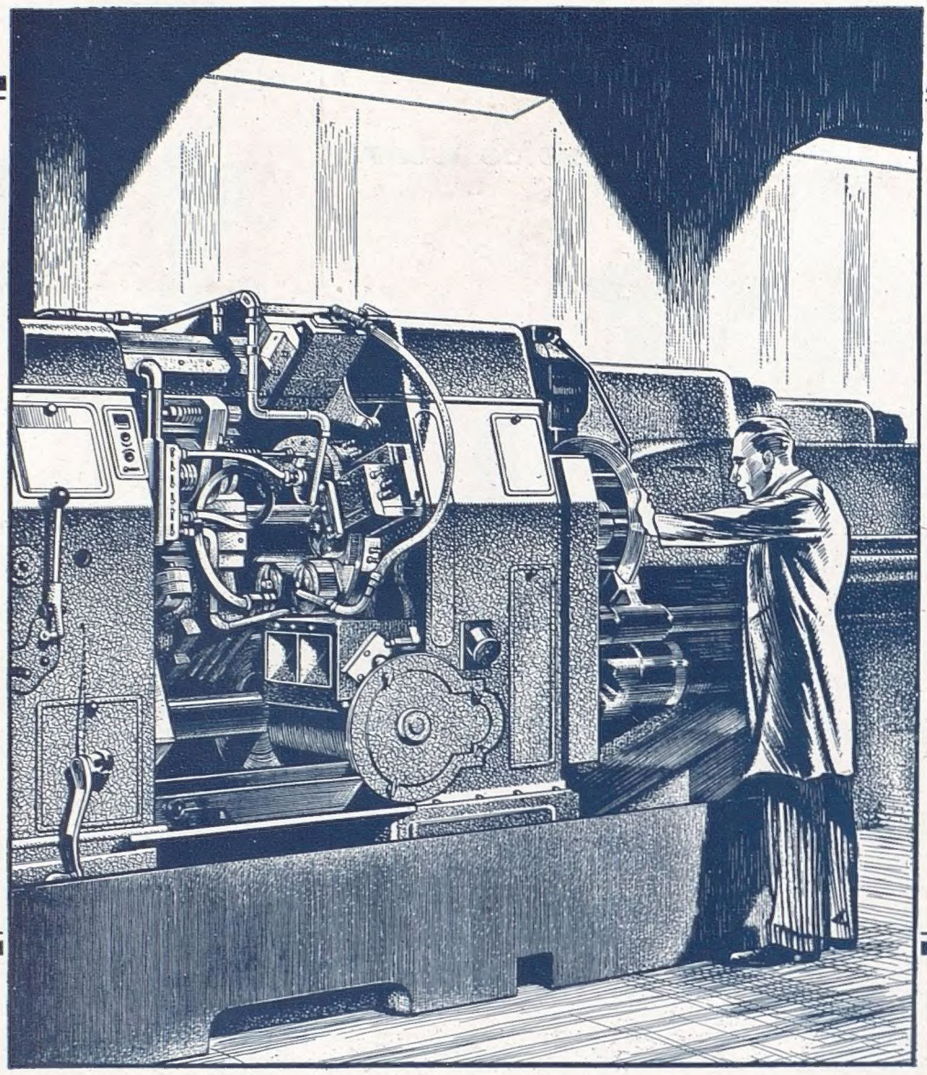

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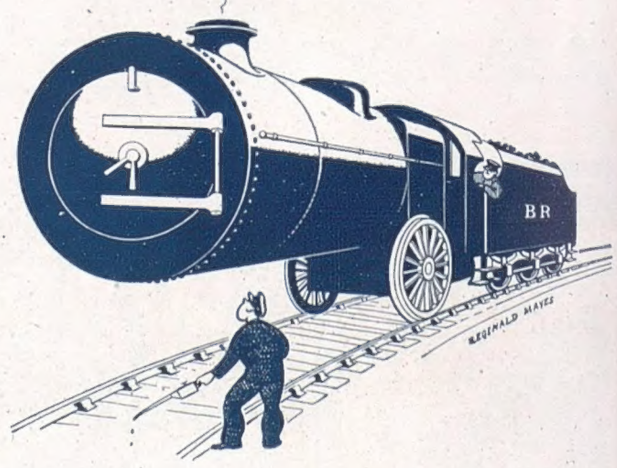

. . . so 'stay put' this Summer

RAILWAY EXECUTIVE COMMITTEE

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